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ABSTRACT

Materials dealing with gainful employment of women, opportunities for employment and advancement, and maximizing opportunities as a means of personal satisfaction and as a contribution to society, were reviewed from the international and national perspective, and as current trends and issues. Realizing that vocational educators have a vital role to play in the full realization of economic rights for women, recommendations for action include: (1) increasing opportunities for developing vocational awareness in relation to aptitudes, abilities, and interests, (2) improving counseling for career choice going beyond the feminine occupations, (3) recruiting girls into programs preparing for employment in a wider range of occupations and career ladders, (4) directing attention to preparation for the dual role of homemaker and employee, and (5) initiating various research and action efforts to modify attitudes of students, teachers, parents, and employers which place artificial restrictions on occupations of women. (SB)

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review and synthesis
of research on

WOMEN IN THE WORLD OF WORK

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REVIEW AND SYNTHESIS OF RESEARCH ON WOMEN IN THE WORLD OF WORK

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PREFACE

The role of women in the working world varies constantly. Recognizing this and because of the rapid increase of working women, this role is gaining in importance for any study of the labor force. But, what is the working woman's role today?

This review and synthesis report attempts to incorporate pertinent related studies that have been made to this point in time. From here it expands to note trends that suggest the changing roles for women. Much emphasis is given to the "dual role" of many women.

Vocational-technical educators who desire to adapt their curriculum to these changing roles will appreciate the efforts of this study. Researchers, as well, will benefit.

The profession is indebted to Mary Bach Kievit, Rutgers, The State University, for her scholarship in the preparation of this report. Recognition is also due Esther E. Matthews, University of Oregon, and Louise Vetter, The Center, for their critical review of the manuscript prior to final revision and publication. Wesley E. Budke, information specialist at The Center, coordinated the publication's development.

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INTRODUCTION

With the transfer of production from the home to the factory and services to the office and shop, women have experienced difficulty in combining two major functions of life, namely the reproductive and the economic. During an earlier time women could weave broadcloth fo the marketplace while caring for young children; it was less feasible to combine care of the young with operating machines in a textile mill. The socially defined role of women places primary emphasis upon the care of children and husbands, and homemaking. Other activities are considered in terms of the extent to which these impinge on fulfilling primary responsibilities. Thus writings concerning women in the world of work almost without exception include treatment of relationships between her "two roles." In a time characterized by a high degree of specialization, one encounters a more global approach in the literature on gainfully employed women. Questions raised and researched include: "What impact does the wife's employment have on the wife-husband relationship?"; "In what ways are children affected by the employment of mothers?"; "How is her effectiveness as an employee influenced by her family composition and by the attitudes of its members?"

The need to delimit the area for which literature was to be reviewed was critical; the task difficult. The boundaries within which materials were considered and selected were as follows: The dominant theme must be on gainful employment of women; opportunities for employment and advancement; impediments and facilitators to maximizing those opportunities as a means of personal satisfaction and achievement and as a contribution to society. The sources of material included: Computer searchers of *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM) and *Abstracts of Research and Related Materials in Vocational and Technical Education*(ARM) through Winter, 1970; *Current Index to Journals in Education* through April, 1971; and *Research in Education* through June, 1971. Descriptors used in the search included: females, women's education, vocational education, trade and industrial education, job, business education, employment statistics, labor force, career, home economics education, distributive education, laborers, working women, foreign countries, manpower utilization, conference reports, occupations.

The following periodicals were searched: *International Labour Review,* January, 1968 - July, 1971; *Industrial Relations,* January, 1968 through May, 1971; *Industrial and Labor Relations Review,* January 1968 through April, 1971; *Monthly Labor Review,* January, 1968 through July, 1971; U.S. Department of Labor, *Manpower Research Inventory,* 1968, 1969; *Manpower Research Projects* through June 30, 1970.

Other sources included recent books, 1968-1971; and the following *Review and Synthesis* publications: *Business and Office Education; Distributive Education; Health Occupations; Home Economics Education; Technical Education; Trade and Industrial Education.*

Research included in these reviews was, in large part, excluded from this review, *Women in the World of Work;* as were studies specifically identified with these vocational areas. Since women are employed in a relatively narrow range of occupations, research in some vocational areas pertains predominantly to women. To avoid redundancy, and to keep this review to manageable proportions, research reviewed in these areas has been excluded.

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REVIEW AND SYNTHESIS OF RESEARCH ON
WOMEN IN THE WORLD OF WORK

WOMEN AT WORK: AN INTERNATIONAL PERSPECTIVE

Labor Force Participation

Numbers and Trends. Human resources are an important factor in economic development. Women throughout the world constitute roughly one-half of those resources. At a period when nations vary greatly in the levels of economic development, it is not surprising to find manpower analysts in most countries considering the labor force participation of women. The comparability of census procedures, including periods in which data are collected, type of data collected, and definition of terms, pose limitations upon the precision of systematic comparisons in labor force participation from one country to

TABLE 1

WOMEN AS A PERCENTAGE OF THE CIVIL LABOUR FORCE OF THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT MEMBER COUNTRIES, AND PROPORTIONS OF WORKING WOMEN WHO ARE UNPAID FAMILY WORKERS[1]

Country	Year	Women as Percent Of Civil Labour Force	Unpaid Family Members as Percent of Working Women
Austria	1961	41.3	24.2
Belgium	1962	31.6	15.1
Canada	1962	27.1	5.1
Denmark	1962	35.3	
Eire	1961	26.7	
France	1962	34.9	18.9
Germany (F.R.)	1962	36.9	22.3
Greece	1961	32.8	55.1
Italy	1962	29.0	24.3
Luxemburg	1962	20.0	
Netherlands	1957	24.9	
Norway	1961	22.9	
Portugal	1960	18.4	28.2
Spain	1961	18.5	16.5
Sweden	1962	36.5	8.0
Switzerland	1960	30.1	
Turkey	1960	40.9	
United Kingdom	1961	34.4	
United States	1962	34.1	4.2
Yugoslavia	1961	33.4	25.7

[1]Klein, 1965, p. 16.

another. Economists, however, taking this difficulty into account have arrived at approximations.

Johnstone (1968) stated that over the world as a whole, 30 out of every 100 women are economically active. In some countries women form more than two-fifths and nearly one-half of the labor force. Variations in participation rates of different countries are considerable however. Klein (1965), reporting data from 21 countries, (see Table 1) pointed out some of the variations in statistical methods of reporting. Some countries, such as Denmark, Luxemburg, the Netherlands and the United Kingdom do not include unpaid family workers – often a high percentage of whom are women – whereas some countries do, such as Turkey and Greece. Thus while reporting women as a proportion of the total labor force, the proportion of unpaid women workers, i.e., work in addition to housework, is also indicated in Table 1.

Klein pointed out that women have at all times and in all countries taken part in the economic activities of their countries. In industrially advanced countries women now constitute a major labor force reserve. Stating that economic growth depends on enlisting more women, she cited that technological advance, including mechanization has brought many more jobs within the range of women's physical abilities and created many new jobs. Observing that in the face of manpower needs, public attitudes have become accepting of women being employed, she noted that women have responded to the need not simply because of existing opportunities but for potent personal reasons as well. These reasons are an intermingling of economic, social, and psychological elements.

Klein reported that within the past 15 years, the proportion of women workers has increased almost everywhere. This has been particularly so in highly industrialized countries, but also in those on the threshold of industrialization. Steady and sometimes steep growth in female employment occurred in the 21 countries studied except France, Portugal and Turkey.

Another trend is the increase in the employment of married women. To illustrate, Klein reported the increases for selected countries as shown in Table 2.

TABLE 2

MARRIED WOMEN AS PROPORTIONS OF TOTAL FEMALE LABOR FORCE

Country	Year	Percent	Year	Percent
Canada	1951	37.9	1962	58.3
France	1954	49.0	1962	53.2
Norway	1950	12.0	1960	24.6
Sweden	1950	30.0	1962	50.0
Switzerland	1950	16.3	1960	25.1
United Kingdom	1950	41.0	1960	52.0
United States	1950	52.0	1960	60.0

Klein, 1965, p. 19.

A related trend reported by Klein is the increasing employment of middle-aged women as a result of more education, earlier marriages, steadily improving standards of health and living, and greater longevity. This trend offers the new opportunity of a large reserve of mature reliable workers, often with previous work experience and special qualifications. Special problems affect women in the more highly qualified occupations, who may have lost some competencies and confidence during the years at home. She reported that schemes for refresher courses with a variety of sponsors were increasing in many countries. The demand for skilled personnel, however, still exceeds the supply of these schemes.

Demographic aspects in female employment in Eastern Europe and the U.S.S.R. were analyzed by Berent (1970). Rates of employment for all women 15 years and over were specified as reported in Table 3.

TABLE 3

PROPORTION OF ALL WOMEN AGE 15 AND OVER EMPLOYED AT POPULATION CENSUS DATE BY COUNTRY[1]

Country	Census Date	Percent of Women 15 Years and Over
Bulgaria	1965	60.7
Czechoslovakia	1961	50.4
Eastern Germany	1964	48.4
Hungary	1960	43.4
Poland	1960	58.9
Rumania	1966	62.5
U.S.S.R.	1959	66.8

[1]Derived from Berent, 1970, Table IV, p. 181.

From Berent's data on age and employment it is apparent that rates tend to be comparatively stable in the 20-54 years of age categories and exceed the rates for all women 15 years of age and over reported in Table 3. Rates decline for the marginal age groups of 15-19 and 55-60 years and over. Berent reported a generally high economic participation rate for married women, at 40 percent in Hungary, whereas in Eastern Germany, Czechoslovakia, and Poland the figure exceeded 60 percent.

Relative to employment rates in relation to the number of children, Berent noted that a comparison of data from 1949 to 1960 for Hungary indicated family size to be somewhat less of an obstacle in 1960. However, the impact of family size was strong. For Eastern Europe and the U.S.S.R., Berent concluded that the data show generally high levels of employment and raised the question of whether the contribution of women to the future growth of the labor force can be sustained on this scale. Policies continue to insist on fuller utilization of women, with the more comprehensive development of childcare facilities, improvement of public catering, further rises in levels of skills and qualifications

among women, and more widespread availability of part-time work, facilitating employment.

He projected, however, that

> . . . it is not unlikely that the currently held views and policies on the desirability of female economic participation will be modified in the near future, in light of the dramatic fall in the birth rate (and even in the number of births) that has occured all over Eastern Europe since the mid-1950's and of the clear contribution of female employment to this trend. (Berent, 1970, p. 191).

In a report from the International Labour Office (1969) relative to manpower aspects of recent economic developments in Europe, the implications of trends of the labor force participation of women were discussed. The following points were stated:

1. The average duration of women's occupational life will increase; thus greater attention should be given to choosing a satisfying occupation with opportunities for advancement than has been given by many expecting a short work life.
2. With larger proportions of women reentering the labor force in the 40-45 years of age period, there is need for counseling and training for reentry.
3. The proportion of married women workers is increasing, thus more workers are combining domestic and work obligations.
4. Decrease of proportion of workers in the lower age categories reflects the fact that girls are continuing their education; which is in keeping with the increased need for skilled workers.

Related Cultural, Social, and Economic Factors. A number of cultural, social, and economic factors are related to the participation of women in the labor force. Some of the factors which came to the fore in this review were the stage of economic development of the country studied; the geographical dispersion of population in urban centers, small towns, and rural areas; types of family systems; and religion. These factors are not mutually exclusive but in any specific society are intricately related. Any effort to understand the variations in the employment of women which exist throughout the world must include consideration of such factors.

The relationship between female labor force participation rates and stage of economic development has been noted and studies by Wilensky (1968), Denti (1968), and Thormann (1969) among others. Wilensky, using per capital income in U.S. dollars as an index of economic development, compared the proportions of women workers in 33 countries, excluding unpaid women workers in agriculture. The data were from 1953 or the nearest year. Participation rates ranged from 38 percent of women aged 14 or 15 and over in the United Kingdom to one percent in Pakistan. Wilensky pointed out that the three great industrial powers, the United States, the United Kingdom and the Soviet Union were among the top five on one of two measures of occupational opportunity, i.e., proporiton of women in the labor force, or proportion of the labor force who are women. He analyzed variations in rates among countries in relation to feminist ideology, rated as more egalitarian and less egalitarian, and concluded that the level of economic development was far more important than feminist ideology as a determinant of female participation in the urban economy.

Denti (1968) in a study of urban and rural labor force participation provided data which points up: 1) the complexity of studying relationships between labor force participation and cultural, social, and economic factors; and 2) the types of variations in urban labor force participation rates which result from cultural, social, and economic factors. Relative to the first, he emphasized the lack of precisely comparable data from the 40 countries studied, and stated that statistics for economically active females are more influenced by differences

TABLE 4
URBAN FEMALE ACTIVITY RATES (PERCENTAGES), BY AGE GROUP, FOR SELECTED GROUPS OF COUNTRIES ACCORDING TO TYPE OF PATTERN

Type and country	Age group (years)					
	15-19	20-24	25-44	45-54	55-65*	65 and over
Type I:						
More developed countries in Europe other than Eastern Europe[1]	48.8	61.6	39.4	42.2	34.2	8.4
Japan	50.3	66.4	44.1	45.3	34.2	15.2
Canada	38.5	54.2	33.3	37.2	25.6	7.3
United States	30.8	48.3	41.6	50.3	38.3	11.3
Type II:						
Latin American countries	27.9	34.9	30.5	25.2	17.7	9.4
Less developed countries in Europe other than Eastern Europe[2]	36.2	41.5	25.9	19.4	14.0	5.9
Ceylon	19.1	26.0	18.6	15.6	12.4	2.9
Type III:						
Eastern European countries	37.3	59.3	53.3	46.7	27.1	11.3
Finland	45.5	66.8	60.5	59.1	44.0	8.9
Type IV:						
(a) India and Indonesia	17.4	25.0	32.1	30.6	22.3	10.0
(b) Burma, Ghana and Liberia	27.9	31.9	36.7	42.7	38.5	19.5
Type V:						
Moslem countries[3]	9.0	9.7	9.7	9.7	8.2	4.6

[1]Denmark, France, Norway and Sweden.

[2]Greece, Portugal and Spain.

[3]Iran, Morocco, Syria and Turkey. Denti (1968) from Table XI, p. 539.

*(sic)

in national statistical reporting and classification procedures than those for males. This difference is linked principally to the treatment of unpaid family workers, composed largely of women in farm households, as a census category.

Relative to types of variations, Denti discerned five main patterns of urban labor force participation evident in the statistical data in Table 4.

Type I is characterized by two peaks occurring in the age groups 20-24 and 45-54. The pattern is prevalent in more developed countries of Europe other than Eastern Europe, Canada, the United States, South Korea, Japan and the Phillipines. Variations among countries are linked to variations in school participation levels, age at marriage, completion of child-bearing, and opportunities for employment.

Type II, prevalent in the Latin American countries, Ceylon and some Southern European Countries, is characterized by a peak of activity at 20-24 years of age with rates decreasing thereafter.

Type III, found primarily in Eastern European countries and Finland, is characterized by increasing activity rates to the 20-24 years of age group with a very gradual decline thereafter until the category of 55-65 years. The comparatively high activity level between 25-44 years can be explained by the greater access to child-care facilities.

Type IV is found in the non-Moslem countries of Africa and Asia. Activity rates increase from the age of 15 up to the age group of 45-54 and drop sharply thereafter. Data from Burma, Ghana, Liberia, India and Indonesia show a similar pattern with slight variations.

Type V which is typical of Moslem countries shows generally low work rates for all age groups and no sharp peaks.

Denti reported also, that participation rates for the various age groups in the less developed countries vary more widely than in the more developed ones.

Relative to labor force participation patterns in rural areas, Denti reported serious limits on the possibility of arriving at any conclusive statement about different levels of age-specific work rates and the shape of patterns prevailing in the rural areas of various countries. He divided the 40 countries into two groups, with the first comprising countries where the numbers of female unpaid family workers in the agricultural labor force are relatively low; the second comprising countries where they are relatively high.

In the first group three major patterns were discernible: the first existing in Canada and the United States and resembling the first urban pattern described earlier, but with lower level of activity. The second exists in Northern Europe and is characterized by high activity in the younger age groups, a constant decline to the age of 25, stability to the age of 54 and declines thereafter. The third pattern is found mainly in the Latin American countries, Portugal and the Moslem countries, and is characterized by very low levels of activity at all ages and generally a gradual decrease with increasing age. He projected that with increased economic development and the improvement of educational and retirement practices, countries with the second and third patterns will move closer to those with the first.

Three types of patterns were evident, also, for countries in the second group. Denti stated:

> In the first the activity rates for the age group 25-44 are lower than those for the age groups 20-24 and 45-54 and therefore resemble to a certain extent the first pattern in group I. The second pattern is found in Japan and the Eastern European countries. Again the levels of activity are very high for all age groups, and with the exception of the high rate in Japan for the age group 20-24, the pattern resembles a bell curve, i.e., the rates for the very young and the old are lower while those for the middle span (25-54) are higher. The third pattern is represented by the non-Moslem countries of Asia and Africa. It is similar to the second but is skewed towards the higher age groups, i.e., the rates of activity increase at successive age levels generally to the age of 50 or so and decline thereafter. (Denti, 1968, p. 544-545)

In summary, Denti found a greater variety of levels and patterns of the female age-specific work rates in rural areas than in urban areas and these different patterns and levels appear to be associated with the level of economic development.

Bean (1968, p. 405) analyzed the utilization of women in the labor force in Pakistan and concluded that

1. women are underutilized;
2. varying rates of participation in East and West Pakistan are interrelated with a) the proportion of non-Moslems, b) the type of cultivation, rice rather than wheat, c) higher rates of widowhood, and d) higher literacy;
3. the same values that have restricted the employment of women in the past will produce greater opportunities in the future: as long as medical treatment for women is given only by women physicians, and related medical personnel, and as long as sex-segregated schools are maintained, the expansion of these services will require larger numbers of professional women.

Bean reported that provision was, in fact, being made for the training of such professional women.

Thormann (1969) comparing Portugal's rate of female labor force participation of 18 percent with a rate of 46.5 percent for north-west Europe, attributed it to cultural factors as well as the low standard of education for girls.

Kim (1970) reported that 30 percent of all females in non-farm households in South Korea were gainfully employed in contrast to 41 percent in farm households. Rates for urban women peak at 20-24 years of age category and again at the 40-44 years of age category; whereas those in farm households rise gradually until the early 40's and then drop rapidly. He attributed these differences to the prevalence of the extended family system in rural areas in which women are expected to find time to engage in gainful employment as well as their normal family duties. In contrast, urban women withdraw from employment to rear their children.

Occupations. Women are employed in a variety of occupations throughout the world. Viewed, however, within the perspective of the total range of existing occupations, women are employed, in large part, in a narrow range of traditional occupations.

Wilensky (1968, p. 235) indicated that the concentration of women workers is in jobs that involve one or more of the following characteristics: 1) traditional housewives' tasks – cooking, cleaning, sewing, canning; 2) few or no strenuous physical activities and hazards; 3) patience, waiting, routine (receptionists, sales workers, telephone operators); 4) rapid use of hands and fingers, such as in office machine operating and electrical assembling; 5) a distinctive welfare or cultural orientation; 6) contact with young children, and 7) sex appeal. Johnstone (1968) stated women are concentrated in a limited number of technical and professional fields to which they are drawn by tradition, e.g., nursing, teaching and childcare, and in the lower range of traditional occupations such as textiles and dressmaking. Myrdal and Klein generalized about employment of women in France, England and Wales, Sweden, and the United States in this statement:

> Everywhere the development in recent times has been characterized by a reduction in domestic service, a relative decrease in industrial work (relative, that is, to the total number of women working) and an increase in the number of women in clerical, distributive and professional services. The proportion of women in employment rose more significantly among the salaried employees than among the manual workers . . . (Myrdal and Klein, 1968, p. 75).

They noted that in skilled and professional occupations a certain division of labor between the sexes seems to have developed, very much along traditional lines. Myrdal and Klein asked a critical question: Is this new specialization along sex lines characteristic only of our period of transition or has it come to stay? They expressed the view that there is doubtless a danger that the modern distribution of labor between the sexes may establish a pattern which isolates women in positions where their chance of independence and responsibility is low.

From the data on these same four countries, Myrdal and Klein pointed to several aspects in which sex divisions within the professionals differ. In France and Sweden, dentistry and pharmacology are becoming feminine fields of work. While in the United States, a relatively large number of women are employed in finance, insurance, and real estate, in Great Britain they have hardly made an impact. Thus, they concluded, innate sex differences are not the basis of the narrow range of occupations, but rather a complex of opportunities and prevailing social customs.

With regard to Eastern Europe and the U.S.S.R., Berent (1970, p. 179) reported that

> as in Western countries the extent of female employment in industry varies considerably between the branches with women workers predominating in such traditional domains as textiles, clothing, food processing, and in some other consumer industries, but it is by no means negligible in heavy industry.

The share of women in total employment in trade and public health increased between 65 and 75 percent. In the U.S.S.R., women constitute an overwhelming majority in the service sector.

Dodge (1966) indicated that in 1959 almost 80 percent of the total number of women employed in the Soviet economy were engaged in what is officially termed physical labor. Agricultural work accounted for 63 percent of women employed in physical labor. He pointed out that of the remaining occupational groupings, only three would be considered women's occupations by American standards – communal and household services, nursing, and public dining. High proportions would be expected also in the garment, textile, and food categories. Metalwork (15 percent of all workers), construction (18 percent of all workers), and railway work (31 percent of all workers), however, are not occupations in which many women could be found in the United States or in other Western industrial nations. He related the high percentage of women in these occupations to the shortage of males of working age, combined with the regime's determination to maintain high rates of growth.

Relative to semi-professional and professional occupations, Dodge noted the high percentage of women in areas traditionally dominated by men, as a major accomplishment of the Soviet regime. Occupations considered in this group include administrators, managers, supervisory personnel, scientists, engineers, and technicians; educators, doctors, lawyers, and accountants; journalists, artists, and performers; and white-collar workers, bookkeepers, clerical personnel and others. The above category refers to those who are engaged in "mental" work as opposed to "physical" work. Women constituted slightly more than one-half (11.1 million) of this important segment of the labor force in 1959. About half of these women have had a specialized secondary or higher education. Dodge analyzed the relationship to education, and stated that the largest advances in the number of women specialists with specialized secondary or higher education were from 1941 to 1964. Health, education and the statistics-economics field were soon dominated by women specialists. The predominance of women among persons engaged in "mental" work is partially explained by the high female enrollment in specialized secondary and higher educational institutions during and after World War II, and by the number of men in the 20-34 age category with specialized secondary or higher education who served in the military. The proportion of women in this area declines with each successive level of education, about 30 percent of all persons holding the candidate degree, and only 10 percent of those holding doctorates. Women in these occupational categories are in the less demanding occupations, and the proportion tends to decrease with successive increase in rank, even in education and health fields where women predominate, and in science and technology where there are fewer women. Dodge concluded that prospects for a woman entering and succeeding in a professional career in the Soviet Union appear to be much more favorable than in the United States or in other Western countries, but the prospects for advancement are not equally favorable to prospects for men.

Vocational and Technical Training

Access to vocational and technical training, as well as lower level general education is an important factor in determining the degree and type of economic activity of women. Johnstone (1968) reported that in principle, girls in most

countries have the right to full and free access to vocational guidance and training. In actuality, however, little thought is given to their occupational choice. The advice they receive is influenced by pressures of tradition, parents, teachers, the immediate environment and marriage possibilities. In most countries, there still exists limited practical access to training for many occupations, and also in many, for training at higher levels of skill and responsibility. According to Johnstone, some older industrial countries or developing countries have segregated education and opportunities for girls do not equal those for boys. Training is provided in only a few trades considered "suitable to the nature of girls" and standards of such training tend to be low.

Findings of a study by UNESCO (1968) provide statistical data on vocational and technical education from responses by 98 countries to a 1964 survey. Responses were incomplete, however, attesting to the variability in the availability of pertinent information. Specific data from this study tend to support Johnstone's generalizations. Variations in vocational and technical education reflected the stages in the economic development of the various countries and to some degree differing political structures. The UNESCO report (1968, p. 90) indicated, for example, that

> the distribution of girl and boy students according to type of training for different branches of activities displays major discrepancies . . . of one to the other. In all countries considered, there is a massive enrollment of girls in training for jobs in the service sector, both at the skilled worker and technician levels. The proportion of girls in total enrollments is, in general, over 50 percent. This finding holds true for all countries regardless of the level of development. However, in the new and developing nations, these types of vocational and technical training are, with few exceptions, the only ones in which girls are actually enrolled, while many other varied types of training are given to boys. In the industrialized countries despite the fact that to varying degrees there is more diversification in type of training given to girls, these are still the branches of training in which, with addition of training for jobs in food technology and textiles, most girls are found and in which their rate of participation is highest.

The report continued that this is also true in the socialist industrialized countries included in the study, although survey responses from these countries show that girls are in fact trained in all branches of activity not prohibited for reasons of health, and do in fact have a higher rate of participation in "unusual training" than in other countries.

The International Labour Office (1969) provided some interesting observations relative to education and vocational-technical training of girls in European countries. Accordingly, it was noted that the occupational choices of girls and provisions for their training are less responsive to emerging opportunities than are those of boys. Therefore more adequate attention should be given to vocational guidance and training.

Relative to the participation rate of girls in apprenticeships and other vocational training programs, the report stated that as a general rule, all countries in Europe over the past 10 to 20 years were experiencing an upward trend. This trend is particularly evident in apprenticeship, although the number

of girls entering full-time training as apprentices is still relatively small; e.g., 20 percent in France; 26 percent in Switzerland; 32 percent in Denmark and 43 percent in East Germany.

Girls were found to tend more towards general education rather than vocational, in contrast to boys. This is partially attributed to their greater academic competence which facilitates admission to general secondary programs. When they do seek vocational training it is within a narrow range of traditional occupations. Although noting that teacher training is a popular choice in colleges and universities, the report indicated that many girls still seek general education that does not prepare for a profession. In many countries, however, a rising proportion of students selecting science and medicine are girls; i.e., 34 percent in France in 1959; 23 percent in Sweden in 1960; 58 percent in Poland in 1959; 55 percent in the U.S.S.R. in 1966-67.

Few girls in market economies are in technical programs. They represent a minority in these programs in centrally planned economies but are represented in higher proportions. In analyzing the factors which contribute to this, the differentiation of curriculum for boys and girls at lower levels of basic education was noted. Curricula for girls, the report stated, makes time for cooking, sewing and homemaking often at the expense of mathematics and science. Thus early levels of education do not prepare girls as adequately for some types of vocational training. Therefore they seek preparation in nursing, teaching, textiles, clothing, wholesaling, retailing, clerical, and personal services. Retraining programs for older women are frequently in this same narrow range. Courses in mechanical trades or repair of telecommunications equipment, however, when organized exclusively for women, have had extremely good results.

The International Labour Office reported that it has been chiefly in a tight employment market that the education and training of women and girls have received new impetus towards achieving parity with boys. The report concluded with an emphasis on the need for better dissemination of occupational information to girls, their parents, teachers, and those in authority to develop new training programs in order to assure that women make the most of new employment opportunities.

Organizations in various countries periodically publish reports on the employment of women as it relates to the availability of vocational and technical education. In England, The Association of Teachers in Technical Institute (1970) issued a report citing the limited opportunities for women in seeking employment and gaining more training, in utilizing short vocational courses to prepare for reentry after a period of absence from the labor force. The Association sought to assess the progress made in vocational education since The Industrial Training Act passed in 1964. One intent of the Act was to improve training of women at work. They noted the surprising dearth of statistics relevant to their concern, and using what was available reported that with an increase to 9 million working women in the country, the proportion in skilled, technical, and managerial positions was declining. Further, although women workers increased 13.9 percent, the increase in low level skilled jobs was 23 percent. The report concluded with a series of recommendations including:

1. Teachers should be trained to help children become vocationally aware, and to encourage children to look at themselves as persons rather than as members of one sex or the other;
2. Career guidance should start earlier and encourage girls to think outside the traditional feminine occupations;
3. Career guidance should be available to women seeking reentry;
4. Parents' horizons of vocational possibilities for their daughters should be expanded;
5. Colleges should encourage girls to prepare for careers where women have heretofore been rarities.

The Canadian Association for Adult Education (1969) sent a "Brief to the Royal Commission on Status of Women in Canada," detailing the changes in women's lives relative to employment and family life and recommending various courses of action to facilitate reentry into education and employment. These included reexamination of admission regulations, greater flexibility in scheduling, dispersal of training opportunities, and refresher courses for professional women seeking to reenter their profession.

Cockburn and Raymond (1967) studied the needs of Canadian women university graduates for continuing education. Webster (1968) directed her attention to adult education for married women in lower socioeconomic levels in Vancouver. They reported a conflict between *priorities* as perceived by resource personnel and clients, the former stressing organizational objectives, the latter wanting preparation for employment. Both groups agreed on the need for study in family relationships, nutrition, home management and employment.

The City and Guilds of London Institute (1964) issued the second of three monographs concerned with part-time courses to prepare persons in skilled crafts. One section considered "Craft Courses for Girls."

Bookman (1964) prepared a booklet to suggest some opportunities for training of mature women entering or reentering the Canadian labor force. Job descriptions, training requirements, and sources of additional information were provided for 19 occupations. These included: cashier, dental assistant, food service supervisor, hairdresser, medical laboratory technologist, medical record librarian, nursing assistant, occupational therapist, office worker, radiological or x-ray technician, power sewing machine operator, real estate agent, sales clerk, seamstress, teacher, waitress, and visiting homemaker.

Bell (1969) reported on the operation of the Women's Bureau Careers Center of the Ontario Department of Labor. Data are reported for the 732 women who came to the center for guidance in order to prepare for returning to work.

Dual Roles

Most analysts of women's employment consider the domestic responsibilities, which seemingly, without exception for the majority of women, irrespective of country, are additional to their work in the marketplace. Klein (1965) described conditions in 21 countries which affect the degree of ease or

difficulty with which women manage employment in combination with domestic responsibilities. Among the conditions described were: length of the work week in various occupations; hours and length of the work day; community services available to assist employed women with family responsibilities; special arrangements and facilities for expectant mothers and those with young infants; the opening and closing hours of retail shops, public service agencies, such as post offices, schools, and banks, and shops providing personal services, e.g., beauty shops. She stressed the importance of coordination among these different "compartments" in which employed women have needs to fulfill, and emphasized that many problems result from the lack of synchronization.

Markus (1970, p. 61) attested to the limitations imposed by the dual obligations to work and family when she wrote:

> The movement towards the emancipation of women, which depends upon their having economic independence and full equality with men in the world of work, is at a dead end, brought up sharply by the fact that though women now do take paid employment as a matter of course, they have not been released from their traditional burden of home and child care. In consequence, they remain basically a low-level, low-paid labour force, still largely financially dependent on men.

Noting that two trends are in evidence to ameliorate this situation, Markus stated that neither provides a satisfactory solution. The one trend evident in the United States is for women to work, marry and bear children, withdraw for 10-20 years, and then return to work. The second trend evident in the socialist countries, but not only there, is that the majority of women stay in employment until they retire, but receive various aids and concessions from the State and from the enterprises where they work to help them during the child-raising period. The inadequacy of the trend in the United States in assisting the emancipation of women is linked to the outcomes of discontinuous labor force participation, such as loss of skill, unable to keep up with technical changes, and loss of experience viewed as essential for advancement to higher ranks. Consequently women continue to be employed in low paid jobs at the lower ranks. She noted that it can be argued that the Socialist pattern is a more positive solution since labor force participation has continuity, but she asserted that analysis of the present actual situation shows otherwise. For due to the lower level of technical development and prevailing standard of living, the tremendous burden of household responsibilities take up even more time than in the highly developed capitalist countries. The majority of women work because of purely economic pressures and hold low level jobs which are often more monotonous and done under worse conditions than average.

Dodge (1966), in describing the low proportions of women in higher levels in science and the professions in the Soviet Union referred frequently to the continuing conflicts between career, marriage and motherhood. He noted that if the Soviet regime should choose to divert a greater proportion of its investment funds towards child care facilities and consumer goods to lighten the burden of housework, creative energies might be channeled in greater productivity and subsequent advancement.

Auvinen (1970, p. 73) echoed both Klein and Markus when she stated:

> Equality of opportunity for women in education and employment is legally a fact and factually a fiction--because social attitudes are more constraining than law. Attitudes about woman's role and marriage not only constrain a girl throughout her entire education towards 'feminine' fields and away from 'masculine' fields--such as science and engineering--but strongly inhibit her aspirations towards high achievement in her chosen career and towards positions of leadership in competition with men. Woman's traditional burden of housework and child care, though she may be employed or studying, puts her at a further unfair disadvantage, so the husband and society itself should take over some of the domestic load.

With seeming consensus that the combination of domestic and employment responsibilities impedes women in achieving full economic equality with men, some conclusions have been drawn and recommendations made.

Markus (1970) emphasized the need for a continuing struggle against the prejudices that hinder a more even distribution of the burdens of homemaking. She recommended that a major financial effort be made to provide an extensive range and network of service organizations and establishments to take over a large share of the household work, with the cost of services so low that all women can take advantage of them. She raised the question as to whether certain aspects of housework could not be turned into trades or professions to create realistic alternatives both for women who wish to remain within a family environment and those who wish to escape from it.

Klein (1965) concluded and recommended the following:

1. Although most governments recognize that no women with family responsibilities should be forced to work, abundant incentives to work do exist now and even more women would work outside the home if certain obstacles were removed.
2. Present work weeks permit both men and women more free time. As working hours are reduced, they should be equitably distributed between men and women, assuring women equal status in the work force and contributing to equal status of men in the home.
3. Efforts should be directed to utilizing more part-time workers and to the inclusion of these workers in unions to protect their interests.
4. Adjustments in the domestic sector are occurring through mechanization and modernization of households, with some greater participation of husbands and fathers in domestic functions.
5. The field most in need of improvement is in the synchronization in areas where occupational and domestic tasks converge, e.g., shopping hours, day care centers, services by public and private agencies.

Klein noted that a prerequisite for all the measures recommended is a change of public attitude to provide moral as well as practical support for the woman worker in what she is trying to accomplish. Her recommendations included home help at nominal cost (necessitating subsidizing) particularly for emergencies; increased day care centers with diverse sources of funding; regularized part-time work; extended service hours in shops, banks, post offices

beyond regular working hours; employee allowances for a limited number of odd days (or half-days) off at their convenience, and provision of more training schemes for late entrants and refresher courses for those wishing to return to work after a long break.

In conclusion, one might liken the conditions confronting women workers in specific countries of the world to variations on a theme. In developing countries today, as in the history of developed countries, when agriculture requires the major portion of the labor force, women work in the fields, forests, and rice paddies often as unpaid family workers, sometimes as paid agricultural workers. Some work in "cottage industries," others in service capacities. With industrialization and urbanization, labor force participation rates, with some exception start to decline, but with increasing mechanization and changes in economic structure, different economic and social pressures emerge. With development comes an increase in the rate of labor force participation, first for the single, perhaps, and then those married. Women are resuming a role in economic activity diminished somewhat during the transition from a predominantly agricultural to industrial economy. The cultural heritage, contemporary social values and norms, as well as past or recent economic and political crises will mediate the specific conditions under which women seek employment, the type of employment, and the duration of employment in relation to their function of bearing and rearing children.

Labor Force Participation

In January, 1970 nearly 31 million women (42 percent) 16 years and older were working or seeking work. In contrast, in 1920, 8.2 million (23 percent of working age women) were in the labor force. Each decade has brought increased proportions of women into the labor force in a variety of economic settings (Waldman, 1970).

Age. Relative to age, a major shift had occurred from 1950 to 1960 when the participation rate of women 35-54 years of age had increased to the point of exceeding rates for those 18-24 years old. In 1970 peak participation shifted back to 20-24 year old women, with the 45-54 year olds in close second place and exceeding rates for girls 18 and 19. Reasons for the shift in 1970 (Waldman, 1970) include the imbalance between young men and women in the prime marriage ages leading to a slight decline in the proportion of women 20-24 years who are married. Secondly, the birth rate has fallen, thus a somewhat smaller proportion of married women in these ages have to care for young children.

Labor force participation rates by age categories are reported in Table 5.

TABLE 5

LABOR FORCE PARTICIPATION RATES (MARCH 1969) OF ALL WOMEN BY AGE CATEGORIES[1]

Age	Percent
16-19 years	37.2
20-24 years	56.6
25-34 years	43.4
35-44 years	49.3
45-54 years	52.9
55-64 years	42.7
65 years and over	10.0

[1]Derived From Table 1, Waldman, 1970, p. 13.

Marital Status. One of the more recent changes has been the increase in the proportion of married women (husbands present) in the labor force. The *Manpower Report of the President,* (U.S. Department of Labor, 1969) noted that between 1961 and 1968, the number of wives in the labor force increased

by more than one-fourth to constitute almost 17 million. In 1968 they were 22 percent of all workers compared with 18 percent in 1961. Between March 1969 and 1970, the increased number of wives in the labor force concurrently with an increased number of unemployed husbands led manpower analysts to speculate that the increase reflected wives of the unemployed becoming employed. Analysis of survey data showed that in March 1970, wives of unemployed husbands had a participation rate of 49 percent, compared with 44 percent for wives of employed husbands. Although the percentage points were higher, the increase from this source could account for less than three percent of the numerical increase. (*Manpower Report of the President,* U.S. Department of Labor, 1971).

Nonwhites. In March, 1968 approximately 3.8 million (48 percent) nonwhite women were in the labor force. They represented 13 percent of the civilian woman labor force and 43 percent of all nonwhite workers. More than 90 percent of nonwhite women in the population in 1960 were blacks according to the *Handbook on Women Workers* (U.S. Department of Labor, 1969a, p. 11).

Education. Consistently, the level of education is shown to be related to labor force participation. The more education women have, the more likely they are to be employed. In 1969, among high school graduates, 49 percent were employed compared to 30 percent of those who completed grade school only. The participation rate increased to 54 percent for college graduates and to 69 percent with five years or more of college. Among this latter group 83 percent are workers at ages 45-54.

Earnings. Generally, higher earnings are also related to higher educational attainment. Women working full time with eight years or less education had median earnings of about $3,500. Median income increased between $300-$500 for each subsequent level of educational attainment including one to three years of college. The increase in median earnings of college graduates was slightly less than $1,800 over that earned by women completing one to three years of college. Differences in median earnings between white and black women are approximately $1,000 for those with less than a high school education; $400 with a high school education. Median earnings of black college graduates exceeded those of whites by slightly more than $200. (Waldman, 1970)

Comparisons between earnings of men and women show that significant differences exist with the earnings of men being higher. Explanations for the differences include these factors: differences in types of jobs held; job training, and continuity of work experience, restricted freedom of occupational choice of married women, and some job discrimination. (U.S. Department of Labor, 1969a, p. 127; Waldman, 1970, p.15). Both reports indicated that women work in traditionally low-paying occupations and low-wage industries. The lifetime work pattern of most women is characterized with interruptions for the bearing and rearing of children. Many return to the labor force as part-time rather than full-time workers.

In 1966 only 41 percent of the women were full-time workers compared to 67 percent of the men. Comparisons of median wage or salary incomes of full-time year-round women and men workers show that women's incomes are

less and the gap has widened in recent years. It is of particular interest that in a period when women constitute a larger proportion of the total labor force, a comparison of wage and salary income for full-time year-round women workers in selected occupations with that of men shows relative income position deteriorated in most occupations between 1956 and 1966. Specifically, median wage or salary income of women clerical workers dropped from 72 percent of that of men to 67 percent in 1966; of women operatives, from 62 percent to 56; women sales workers from a peak of 45 percent in 1957 to 41 percent in 1966; women managers, officials and proprietors from 64 percent in 1957 to 54 percent in 1966. Wage and salary income of professional and technical women workers as a percentage of men's was higher in 1966 at 65 percent than in 1956 at 62 percent. Women service workers were in about the same relative position of 55 percent in both 1956 and 1966. (U.S. Department of Labor, 1969a, pp. 133-134).

Fuchs (1971) reported some preliminary results of a larger study of male-female differences in hourly earnings, hours of work, occupational distributions, and other aspects of labor market behavior. The principal focus of his study was to determine the size of the sex differential in hourly earnings for all non-farm employed persons and to analyze how this differential varies across industries, occupations, and other subgroups. The assumption underlying this approach was that the pattern of variation can shed some light on the causes of the differential. He found that:

1. the differential is large; on the average, women earn only 60 percent as much as men;
2. women who have never married have an age-earnings profile which is very similar to that of men;
3. the higher the precentage of female employment in an occupation, the lower are the earnings of both women and men;
4. most men work in occupations that employ very few women and a significant fraction of women work in occupations that employ very few men;
5. most of the 40 percentage points difference can be explained by the different roles assigned to men and women;
6. evidence did not indicate employer discrimination is a major direct influence, but that discrimination by consumers may be more significant.

Fuchs' opinion was that some reduction in role differentiation is desirable and would require the combined efforts of men and women at home and in school, as well as the marketplace.

Families Headed by Women. Stein (1970) reported an increase in the number of families headed by women. Between 1960 and 1970 the number rose 24 percent whereas total families increased by 14 percent. In March 1970, 5.6 million women were heads of families, i.e., more than one family in 10. The relationship between employment, earnings, education, and number of children were specified. The characteristics of these families are diverse, however the highest proportion is among the poorly educated and low income groups, among

minority groups and among city residents. Among the black urban poor, the proportion of families headed by women was 66 percent in March 1970. The national trend toward increasing proportions is much more pronounced among the urban poor than in the nation as a whole.

Families headed by women account for a large and growing proportion of the remaining poverty (defined as $3,700 for a nonfarm family of four headed by a woman) in the country. In 1969, 47 out of every 100 poor families with children were headed by women. In 1959, the proportion was 28 out of 100.

If a family headed by a woman has only one or two children, the chances of the family staying above the poverty line are about two out of three. As the number of children increases, the probability of family income being under the poverty line increases sharply.

Earnings of women heading households are affected by education, part-time and full-time employment. Limited education and limited skills are related to low paid service jobs and part-time employment. In 1967, of female heads of families age 16 to 44 years, 70 percent worked some time during the year but only 38 percent worked throughout the year at full-time jobs. Half of all female heads of poor families did not work at all during the year. Of those who did, nearly half of these had low paid service jobs such as kitchen helpers, maids, hospital attendants and aids, and laundry workers. One-fifth held semiskilled factory jobs.

Children. The number and age of children affect the participation rate of women. A leaflet published by the U.S. Department of Labor, Women's Bureau (1970b) reported that in March 1969 of all women workers, almost two-fifths (39 percent) have children under 18 years of age. The proportion employed increases with the age of children. Of mothers with children six to 17 years only, 51 percent were workers; with children between three and five years of age only, 37 percent; with children under three years old, 26 percent. Nearly half of all children under 12 years of age with working mothers were cared for in their own homes. Only six percent of those under six years of age received group care in child care centers or similar facilities. Of working mothers, 84 percent as of March 1969 were living with their husbands. Of all mothers with husbands present, 39 percent were employed. Where husbands were not present, 59 percent of the mothers worked. Relationships between education, employment, and earnings persisted for working mothers. These data relative to working mothers reflect the pattern of work in the lives of most women.

Work Patterns

Garfinkle (1967) analyzed the work life expectancy and training needs of women. He reported that the pattern of work is less continuous than that for most men. Women work for a few years after completing their education, leave the labor force to raise a family, and return to the labor force after their children have reached school age or are grown. Divorce and widowhood are other factors affecting reentry. Women who never marry may have a longer work life than men. However since only about five out of 100 women do not marry, they constitute a small part of the entire female labor force. As women approach

retirement age they tend to leave the work force earlier than men. Garfinkle's analysis included estimates of work life expectancies, under 1960 conditions given certain contingencies. Women marrying at age 20, having one child, have a work life expectancy of 25 years compared with 22 years for women with two children; 20 years for women who will have three children; 17 years with four or more children.

Most women 35 years of age have completed their families. Those who no longer have responsibility for the care of young children have a work life expectancy of 24 years. Work life expectancies vary for women in different occupations. Women working in professional occupations typically have smaller families and a longer work life expectancy than women in other occupations. "The largest portion of women's work life typically occurs after their children have grown," Garfinkle stated. "Consequently, it is at least as important to provide for women about to reenter the work force as it is for women about to enter their first job." (1967, p.2)

Why Do Women Work?

Answers to the question, "Why do women work?" take a variety of forms placing more or less emphasis upon economic, sociological, or psychological factors and their combinations. In studying the female labor force in the United States, Oppenheimer (1970) found that relative to demand, all three estimates which she used indicated a rising demand for female labor, particularly since 1940. On the basis of considerable analysis, she noted that the great influx of older married women into the labor force was in good part a response to increased job opportunities – not a creator of such opportunities.

Kreps (1971) reviewing information on women workers, and demand and supply of women workers, among other topics, analyzed the willingness of women to change the nature of their activities from home work to market work as the latter becomes available.

> How many of them elect to take jobs (or stated differently, what it takes to induce any given number to take jobs) depends upon their evaluation of the two sets of advantages: the home set, consisting of more time for leisure, hobbies, and community activity; closer attention to needs of the family; economies reaped through full attention to home management; freedom of schedule, etc.; and the market set, including earnings and fringe benefits; job status; associations available in the work place; interest in the work itself. (Kreps, 1971, p. 64)

She cited evidence that pointed up the need for income which became the overriding consideration for most, and expressed little doubt that the low participation rate of women with low educational achievement is due to the lack of job opportunies. Kreps continued,

> For families on very low incomes, the wage necessary to induce the wife to take a job is also low, since the value of each additional dollar of income has high utility. As the husband's income rises, the wife's willingness to join the labor force declines, other things being equal; the supply of wives' market services is thus a backward-bending curve when correlated with the husbands' income. (p. 65)

Continuing to examine another variable, namely the wife's possible range of earnings in light of existing data, Kreps found indications that married women seem to respond positively to wage incentives. Indicating that advantages of market work over home work is linked to the value of the latter, she pointed out that the precise value of home work from household to household is unknown. Although Kreps proceeded to estimate the value of home work in economic terms, at the present time, the absence of including value of home work in the Gross National Product gives it a market value of zero. In making decisions families may undervalue nonmarket activities though according them some value. In either event, the economic advantage of market place work is perceived as greater.

G. Smith (1964) in a study of demand and supply in a local job market for women obtained data from a sample of 27 firms within a seven mile circle, and from a random sample of 272 employed women living in the same seven mile circle. Her conclusions pertain to the demand for women workers between 1953 and 1961 and the characteristics of the supply of women workers. Among other findings, she reported that it is doubtful if the increase in women workers reflects a change in their willingness to work, but rather that the critical change has been in women's opportunity to work. Responses to questions relative to allocation of earnings, supported the importance of economic needs as one reason for employment. Although only one-third of the women came from households where theirs was the only pay check, more than 60 percent said that the biggest share of their earnings went for necessities with food and rent items most frequently mentioned.

Smith reported that as she listened to over 200 women recount the history of their work lives, during the interviews, the powerful influence of time became evident.

> A woman's reasons for working at any given time--no matter how candidly stated--do not necessarily explain her presence in the work force. If she has been employed for any number of years, the critical factor which pushed or enticed her into the labor force has probably long since lost its immediacy and she works at present for a new reason, or perhaps, for no reason at all, save habit. (G. Smith, 1964, p. 61)

In a concluding section she stated, "These women took working for granted – in much the same way that a man does, regardless of whether or not he can 'afford to take it easy' " (p. 76).

Myrdal and Klein (1968) analyzed the motivation of married women to seek employment in terms of external and internal opportunities. The first, external, relates to the existence of supportive social conditions and includes 1) the existence of a sufficiently wide range of suitable jobs within reasonably easy reach; 2) good transport services; 3) provision for care of children; 4) and the possibility of making arrangements for some of the more time consuming household duties to be taken over by commercial services. Internal opportunity is created by the increased leisure women enjoy as a result of their small families and the invention of improved household conveniences. In considering the economic and psychological motives, these authors presented evidence to support the notion that economic need might accurately be refined and stated as

the gap between real and desired family income, with the latter in turn being conditional on the things that money could buy. They concluded that the employment data from the United States and Sweden, both countries with high standards of living, support the view that married women seek employment in all likelihood for a combination of motives, including a desire for more productive or more diversified work, by the wish to make better use of innate abilities or of acquired training, by wanting to "keep up with the Joneses," or simply by sociability.

A recent manpower research monograph, by Shea, *et al.* (1970) reported preliminary findings from a longitudinal study of a national sample representative of women 30-44 years of age relative to labor market experience. Work attitudes, satisfaction, and job attachment were among the variables investigated. Findings support the importance of intrinsic job satisfactions as a factor in employment. Shea reported that three-fifths of employed white women and two-thirds of employed black women indicated that they would continue to work even if they were to receive enough money to live comfortably without working. This "commitment to work," as the variable was labeled, tends to be stronger among nonmarried than married women, among those without preschool-age children, among those in professional, technical, and managerial occupations than in other occupational categories, and among those with permissive attitudes toward the employment of women with children. Most working women have positive attitudes toward work, and substantial majorities report that they like their specific jobs very much. Fewer than one in 10 express any degree of job dissatisfaction. Job satisfaction is positively associated with occupational level and within major occupational groups, with hourly rate of pay. It also appears to be greater among full-time than among part-time workers, particularly in the case of white women. Findings point up some differences in attitudes of whites as compared to black women. Black women tend to register higher commitment to work, especially if they are in blue collar jobs. Shea, *et al.* pointed out that this is consistent with the higher labor force participation rates of black women which seem to persist even when other family income is controlled. The proportion of black women who believe extrinsic job attributes, e.g., good wages, are more important than intrinsic attributes, e.g., liking the work, is double that of white women (40 percent versus 21 percent). Fifty-six percent of black women versus 68 percent of white women express high satisfaction with their jobs.

Other studies have obtained similar results pertaining to the intrinsic value of work for specific occupational categories, e.g., in a statewide study of a representative sample of secondary home economics teachers, Kievit (1970) found that close to 60 percent reported they would continue to work full-time; 30 percent favored part-time employment; with less than 10 percent reporting they would quit working if all economic needs were met in other ways. This group reported high job satisfaction also, with a mean score of approximately 22 on a 25 point scale.

In summary, women appear to be motivated to work by a combination of economic and psychological needs mediated by their marital status, number of children, educational attainment, race, family income, and health. Whether they

are a part of the labor force or the labor force reserve is intricately linked with the number and type of employment opportunities within an expanding or contracting economy.

Problems Encountered

Although the majority of women workers express considerable job satisfaction, a review of the literature indicates that this cannot accurately be interpreted as an absence of problems. Problems confronting women who are employed or who seek employment include discrimination in opportunities for employment and advancement in the job as well as in wages and salaries. Such discrimination from a manpower perspective contributes to underutilization. In addition, women who are employed must find ways to fulfill their familial and domestic responsibilities while being a productive worker.

Underutilization Through Discriminatory Practices. G. Smith (1964) pointed out that the fact that women's wages and salaries are generally lower than men's for any comparable type of work, has been noted by observers of the economic scene repeatedly since Matthew Carey documented the wage scale of Philadelphia working women in 1829. Reports of wage differences within occupational categories in the 1969 *Handbook on Women Workers* was noted above as were findings from Fuchs (1971). Another recent release, *Underutilization of Women Workers* (U.S. Department of Labor, 1971) from the Women's Bureau reported that average monthly salaries being offered to 1970 women college graduates in six fields of interest by 110 business and industrial firms ranged from $18 to $86 less than salaries being offered to men college graduates in the same fields.

McNally (1968) in an analysis of patterns of female labor force activity considered the question of sex discrimination, stating that in studies comparing earnings between men and women with the same job titles there is seldom the information necessary to isolate other elements that affect earnings such as productivity and seniority. She cited one extensive study of women lawyers which attempted to consider some of these factors. The investigator concluded that the income differential found is almost certainly caused by discrimination, and is nonfunctional in that it is *not* based on valid differences between men and women.

A Bureau of Labor Statistics survey (McNally, 1968) found that within individual establishments employing both sexes in similar occupations, wage differences were small; and that whereas men's wages were about the same whether or not they worked in establishments employing both men and women, earnings of women were consistently higher in establishments employing both sexes than in those employing only women. McNally concluded: "The implications for counseling are clear. For reasons of pay alone, girls should be advised not to enter strictly female occupations, but to choose those that are still bisexual, where they can work side by side with men." (1968, p. 215).

Federal Legislation Relative to Discrimination. As reported by Moran (1970), federal measures to bar discrimination in employment having relevance

for women are the Equal Pay Act of 1963, which requires equal pay for equal work regardless of sex; Title VII of the Civil Rights Act of 1964 which states that discrimination on the basis of race, color, religion, sex or national origin is an unlawful employment practice; Executive Order 11246 as amended by Executive Order 11375 of October 13, 1967, which bars discrimination on the basis of race, color, religion, sex or national origin by federal contractors, and The Age Discrimination in Employment Act of 1967, which protects most individuals over age 40 until they reach their 65th birthday, regardless of sex.

Moran described some of the early efforts to establish the principle of equal pay soon after the Civil War. (See also Citizens Advisory Council on Status of Women, 1965). He continued to relate efforts to enforce the Equal Pay Act, noting that by the end of April, 1970 over $17 million in underpayments had been found owed to more than 50,000 employees, nearly all of them women; and over 140 equal pay cases were filed in court. Commenting on the decisions rendered so far, he noted that a body of principles is rapidly developing which may have far-reaching effects on job structuring and pay practices throughout the country. Examples of some changes are presented including an instance where a Federal District Court in Dallas held that an all-male job of hospital orderly was equal to the all-female job of nurse's aide. Courts elsewhere have followed this principle causing hospitals in many parts of the country to pay their nurses' aides at a rate equal to that of their orderlies. G. Smith (1964) had questioned the impact of the Equal Pay Act, since she had found that employers took the stand that they did pay equally for the same job, but that women's jobs were different from men's.

Gains may be made if court decisions continue to follow principles such as the one cited by Moran established by *Wheaton Glass,* namely:

> Jobs must be only 'substantially equal,' not 'identical,' to permit job comparisons under the act; there must be a rational explanation for the amount of wage differential, and it is the employer's burden to provide it; and the employer's past history, if any, of unequal pay practices is an important factor in determining whether there is a violation of the act. (Moran, 1970, p. 33)

Enforcement efforts are being directed to a variety of pretexts often used by employers to justify lower wages for women. Moran concluded that enforcement costs can be quite high, however, discernible progress is being made not only through enforcement efforts but through many employers voluntarily adjusting practices. Many labor unions have also contributed to this effort.

Kreps (1971) also considered the impact of federal legislation on discrimination against women workers. Examining federal and state fair employment practices laws, she reported that as of early 1970, 37 states, the District of Columbia and Puerto Rico have mandatory fair employment practices, 21 of these states and the District of Columbia prohibit sex discrimination. According to the Women's Bureau (U.S. Department of Labor, 1971) the number has increased to 23.

Fair employment practices laws have particular import considering that differences in earnings between men and women exist partially due to the fact that sex-labeling of jobs often excludes women from higher paid jobs and

occupations. This sex-labeling applies both to the occupation and to the education essential to developing the competencies necessary. On the other side is the question as to whether women are willing to complete the extensive education necessary and to commit themselves to the continuity of work often viewed as providing the necessary practical experience, (Lewis, 1968; McNally, 1968; Kreps, 1971; Oppenheimer, 1968). McNally (1968) though acknowledging the "true-blue feminists" position of equal access to every occupation, and the thwarting effect of socialization to traditional occupations, stated "it is hard to believe that if a strong desire to break into other types of work had prevailed among women in general, they would not have achieved more in the past 10 or 20 years" (p. 212).

Information is available relative to investigations made under these laws. Hearings in one such investigation took place on the utilization of women and other minority workers in certain major industries (Equal Employment Opportunity Commission, 1969). Meetings with representatives of the aerospace, motion picture, and broadcasting industries led the Commission to conclude that there was underutilization of blacks, Mexican-Americans, and women in all three industries.

Studies to Assess Discrimination. With the increased attention to discrimination against women workers, interpreted by some as being reflected in the distribution of women in various occupations and at various ranks, a number of articles have appeared reporting the results of surveys by specific firms, agencies or institutions to ascertain the extent and nature of discriminatory practices.

In the federal government, the U.S. Civil Service Commission (1969, 1970) conducted studies for the purpose of evaluating the status of women in comparison to the total full-time white collar federal work force, to assess progress made, and to identify areas where greater efforts should be made to assure equality of opportunity for women. The report noted that the Federal Women's Program was instituted as a permanent and integral part of the government's implementation of the equal opportunity policy enunciated in the Civil Rights Act of 1964. Primary program efforts have been directed toward:

1. creating the legal, regulatory, and administrative framework for achieving equality of opportunity without regard to sex;
2. bringing practice in closer accord with merit principles through the elimination of attitudes, customs and habits which have previously denied women entry into certain occupations, as well as higher-level positions throughout the career service;
3. encouraging qualified women to compete in examinations for federal employment and to participate in training programs leading to advancement. (U.S. Civil Service Commission, 1970, p. 2)

The Civil Service Commission (1970) reported that recruiting and hiring statistics reflect progress. There are some indications from major nationwide examinations, used as avenues to career opportunities, that more women are taking advantage of opportunities for entry into executive/management positions. It was also reported that a profile of women in the federal white-collar

work force indicates that women are continuing to achieve occasional breakthroughs outside the traditional "women's fields" and into higher level positions.

On a state level, the Vermont State Department of Employment (1965) studied employer hiring practices and attitudes towards women. The study concluded that Vermont employers were found to be prejudiced toward the employment of women. Some hiring policies were guided by adverse experience with a higher turnover rate of women employees, however the number of occupations in which women are preferred has increased. A summary of the demands for women workers as compared to men were included.

Employment of women in higher education was the focus of the largest number of studies to assess discrimination which came to the fore in the searches for this review. The Citizens' Advisory Council on the Status of Women (1971) pointed out that Executive Order 11246, which prohibits sex discrimination by federal contractors, is the instrument for attacking such discrimination in staffing universities. Hawkins (1969), Graham (1970), Harris (1970), Rossi (1970), Oltman (1970) and Kreps (1971) reported results of surveys, relevant national statistics, and discussed the implications. Brown (1967) in an economic analysis of the academic labor market studied inequalities in relation to women and other groups.

L. Simpson (1970) reported the outcomes of a doctoral study of six colleges in Pennsylvania relative to attitudes of administrators and faculty toward employing males or females for academic appointments. He found that women were chosen over men applicants only when they had qualifications superior to those of the males.

Institutions for which reports on the status of women appeared were the University of Chicago (1970), Harvard (1970), New York State University at Buffalo (Scott, 1970), Brooklyn College (Babey-Brooke and Amber, 1970), University of Oregon (Acker, *et al.*, 1970).

Generally, information concerning women in higher education indicates the following: 1) 22 percent of faculties are women; 2) they are concentrated in the lower ranks and in part-time positions; 3) variations in proportions exist for the different disciplines; 4) selective admission practices use sex as a criteria for limiting the numbers admitted; 5) the number of women admitted for advanced degree study exceeds the number of women in faculty positions; 6) using publications as the index of productivity, academic women are less productive than men. The extent to which these differences are the result of discrimination is another question, which has proponents on each side.

Considering the meaning of discrimination versus differentiation, the former is defined here as unequal treatment based on membership of an individual in a social category, e.g., sex, race, age, which is irrelevant by objective standards. Differentiation is unequal treatment based upon differences which are relevant by objective standards. Making a similar distinction, Brown (1967, p. 81-82) concluded on the basis of his data from a national sample slightly exceeding 7,500 full-time faculty members, that

> . . . not all of the discrimination against women evolves from discrimination by employers. Part of the differences in rates of

remuneration can be explained by the lesser productivity of women, part by the preference of women to teach at colleges with low abilities to pay, and part by technical considerations.

Technical considerations included the concentration of women in the lower paying disciplines and concentration in women's schools which are located in the lowest paying region, i.e., the North Atlantic. Brown continued: "Though employers may be only differentiating, society may impose prior discrimination. For example, opportunities may not be equal for women to attend graduate school, publish in the scholarly journals, and gain financial assistance (p.82)." Astin's findings (1969, pp. 77-93) on the occupational achievements and rewards of women doctorates are suggestive of relationships between various factors and, in general, corroborate Brown's work.

Brown's assessment was within the current value orientation of publications as an index of productivity. Rossi (1970) as well as others, questions that value orientation and makes the point that teaching effectiveness with students might be accorded greater value particularly with the thrust for admitting larger numbers of minority group youth to colleges. She subscribed to the view that the value placed on publication has led less to a "knowledge explosion" as so frequently stated than to a "publication explosion."

Some studies have probed factors which facilitate or impede the movement of women into advanced degree programs and the professional careers for which advanced degrees are preparatory, (see Lindsey Harmon, 1965; Mitchell, 1968; Astin, 1969, and Epstein, 1970, 1971). Counselors and librarians are illustrative of other groups in which concerned members have written about discrimination urging their peers to act (Schwartz, 1969b; Albertson, 1969; Schiller, 1970; American Library Association, 1970; Freedman, 1970; Cunningham, 1970).

If the late 1960's is a valid indicator of the 1970's, it is anticipated that more investigations to ascertain violations of equal pay and equal employment opportunity legislation will be reported, hopefully cutting across a wider spectrum of jobs in which women predominate.

Underutilization As Related to Education. Another indication of underutilization, to which discrimination may or may not contribute directly, is the proportion of women employed in jobs which are not commensurate with their abilities and educational achievement. Berg (1971) stated that data suggest that high education jobs have expanded somewhat faster for men than women; that those in the middle have expanded faster for women than for men; and that educational achievements have followed a pattern according to which many highly educated people are incumbents of jobs requiring (sometimes as in the case of women, substantially) less education than they have achieved. The Women's Bureau (U.S. Department of Labor, 1971) reported that in March 1969, 19 percent of the working women who had completed four years of college were employed in nonprofessional jobs as clerical, sales, or service workers, or as operatives, mainly in factories.

The longitudinal study by Shea, *et al.* (1970), showed that occupational mobility experience of women is rather modest in both directions (i.e., upward and downward); may be related to obsolescence of knowledge and skill; is certainly influenced by the availability of various kinds of jobs (part-time, shift

work, etc.) and is strongly associated with educational attainment and labor force attachment. Further, they reported that overall a larger number of ever-married women with children have been downwardly rather than upwardly mobile, and there is clear evidence that marriage, childbearing, and the extent of absence from the labor force are strongly related to lifetime changes in occupation.

Data relative to geographical mobility and occupational mobility showed that women who were geographically immobile were also more likely to remain in the same occupation. They noted that

> it may very well be that women of both color groups in the professional-technical and managerial categories suffer most in terms of occupational status when they move geographically. Nearly a third of the mobile but only 14 percent of the immobile whites from these occupations moved down the occupational scale by 15 points or more. For black women, comparable proportions were 57 percent and 35 percent. (Shea, *et al.*, 1970, p. 168).

At the completion of this longitudinal study, Shea, ***et al.*** should have a number of findings relative to assessing the extent to which underutilization exists and some of the determining factors.

Some questions arise: Do women choose routine jobs although they are capable of and educated for more complex work, as a compromise to secure the desired balance between familial-domestic responsibilities and employment? Would more supportive social services, e.g., child care, availability of household help, and shopping services influence women to seek employment commensurate with their ability and training? Do the years of absence from the labor force lead to an obsolescence of skill, confidence in one's competence, and greatly diminished interest in work as a possible source of satisfaction? These are only a few of the numerous questions to which, answers would be helpful in assessing whether or not patterns of labor force participation reflect individual choices from a number of viable alternatives, or from so few alternatives that the term choice carries little meaning.

Underutilization Through Unemployment. Another facet relative to underutilization is involuntary unemployment. The Women's Bureau (U.S. Department of Labor, 1971) reported that unemployment rates for women have been higher than those of men for the past decade and were 4.7 and 2.8 respectively in 1969. Clague (1969) in analyzing unemployment in the past, present, and future provided some added insight into unemployment statistics. He stated that three factors contribute to the higher rate of unemployment for women: 1) the competition of homemaking responsibilities which often force a woman worker into tardiness, absenteeism, and inability to work in emergencies; 2) the seasonal character of some women's participation in work outside the home; and 3) frequent entry and reentry into the labor force, accompanied by periods of job hunting, in particular.

Describing the high unemployment rates for teenage girls (and boys), Clague pointed out that many are seeking part-time work to combine with school; further larger numbers of youth are entering the labor force. A deterrent to

employment is the application of the minimum wage law to youths, hence adding to the cost for employers. Unemployment rates for out-of-school girls and boys is about the same, at 12.5 percent in 1967. Whereas the unemployment rates for in-school youth reflect temporary part-time jobs, those of out-of-school youth reflect instability of male and female workers.

In 1961, nearly one-fourth of males and females under 25 years of age changed jobs as compared to one-tenth of adults age 25 and over. In 1964, about 40 percent of youth had changed jobs and half of them were unemployed in the process. In 1967, half a million youth had left one job and were looking for another, and nearly 30 percent were voluntary quits. Clague noted that a majority of young persons not in school looked for a job for less than 5 weeks and about one-tenth for as long as 15 weeks. Out-of-school youth "shop around," looking for a job with a "future," reluctant to begin at the bottom as an unskilled worker, yet lacking the skills and education required for skilled work.

Unemployment can, under some conditions, lead to poverty. The extent of poverty among families headed by women has been presented earlier. It merits repeating, that women heads of households below the poverty line tend to be caught in a combination of forces, limited education and skill and dependent children who require care. Stein and Kleinfelder (1968) included data on these family units as they delineated the extent of poverty in the United States, 1959 to 1966.

Absenteeism and Labor Turnover. The Women's Bureau (U.S. Department of Labor, 1969b) summarized the latest facts relative to absenteeism, labor turnover, job tenure and labor mobility of women workers. These data are of heightened interest because of the efforts to extend and enforce the principles of equal pay and equal opportunity for employment, and because employers have used these labor force behaviors as justification for differential treatment based on higher labor costs. Findings of a number of surveys are reported to substantiate this conclusion:

> Women workers have favorable records of attendance and labor turnover when compared with men employed at similar job levels and under similar circumstances ... statistics on absenteeism and labor turnover indicate that the skill level of the job, the age of the worker, the worker's length of service with the employer, and the worker's record of job stability--all provide better clues to an understanding of differences in work performance than does the mere fact that the worker is a man or a woman. (U.S. Department of Labor, 1969b, p. 1).

Maslow's study (1970) of 11,000 men and 15,000 women relative to job factors, attitudes and preferences affecting relative advancement and turnover in federal careers, indicated that women were more highly educated; were older; and had more service than men within the same grade. Overall turnover rates for women were higher than for men. Age and occupation had a significant impact on turnover however, and when turnover rates within the segments of the total groups were studied, sex differences were greatly reduced. Other findings concerned work attitudes, expectations, and aspirations. Although both men and

women agreed on the ideal job aspects and job satisfaction, women did not have as high aspirations as men.

Improving Utilization. Ginzberg (1968a) in *Manpower Agenda for America* included recommendations which he believes hold promise for more effective development and utilization of the knowledge and skills of the most highly trained sector of the female population. Although he specified "the most highly trained sector," these recommendations, with some adaptation, could have wider application. He directed attention to these areas: guidance and counseling, education, the job market, and the community and governmental arena. Of particular relevance are: 1) inform parents of the educational and occupational opportunities open for their daughters and the feasibility of combining marriage, children, and careers; 2) teachers, counselors, and others in leadership positions with young girls should be similarly informed; 3) those influencing curriculum choices of girls should encourage them to study the science and mathematics necessary in a number of fields today; 4) young women in college (one might add in high school vocational curricula) should be stimulated to crystallize occupational objectives within larger life plans, to consider alternatives of advanced study or future employment, and to become aware of the opportunities and difficulties of combining family and career; 5) greater financial assistance to women; 6) provision for women to return to school or work either part-time or full-time; 7) reassessment of entrance requirements to programs; 8) updating programs for reentry into the labor force; 9) employers must recognize that the labor force attachment of women is affected by the work being commensurate with their abilities and the prospects of advancement; 10) employers must reexamine personnel policies as these affect women, in terms of evidence, and eliminate barriers based on subjective impressions.

Other recommendations pertained to the role volunteer activities could play in skill maintenance and to government support for counseling, higher education, expanding child-care facilities to serve middle-income as well as low-income families, tax benefits for household help as well as child care, and research on the development of talent.

Employment and Homemaking

The traditional division of labor between a husband and wife within the home has continued in large part. Both wives and husbands tend to see household management and child care as the primary responsibility of wives. Although this allocation of responsibility is being questioned, evidence indicates that for the large majority of families, traditional patterns prevail. Thus, women employed outside the home have, in effect, added job obligations to continuing domestic obligations. It is not surprising, that combining employment and homemaking produces some areas of conflict and stress.

Household Management. Kreps (1971) reported that one study found that married women do 70 percent of all housework done by family members and spend an average of 40 hours per week engaged in this work. Walker (1969) studying a stratified random sample of 1,296 husband-wife families found that full-time homemakers spent about eight hours per day and employed

homemakers about five hours per day. She pointed out that this is not less than for full-time homemakers 40 years ago. Employed homemakers, defined as working for pay more than 15 hours per week, used 5.3 hours per day in household work. Variations are reported in terms of number and ages of children. On the basis of time records analyzed, the homemaker's *total* work day was almost nine hours per day for those not in the labor force and it was 10 hours for those who worked 15 hours or more in the labor force.

Kreps concluded that in spite of automatic washers and dryers, running hot water, automatic furnaces and convenience foods, household work continues to be time demanding, with the possibility that the time "saved" in food preparation and clean-up went into marketing time to select and buy convenience foods. Walker's findings have wider applicability due to the sampling. The final report of the total project may provide some indication of variations between socioeconomic strata.

Astin (1969) reported that women doctorates (employed and unemployed) spent between 18 and 19 hours per week managing the household, and married women with children spent an estimated 10 hours per week in child care, making a total of 28 hours per week or four hours per day. In addition, 47 percent reported having a cleaning woman who came once or twice a week: 16 percent had a full-time housekeeper (30 percent of those with children). She concluded that "it is evident that professional women, although they themselves spend an average of four hours per day on household and child care tasks, still require the assistance of others (p. 96). Paloma and Garland (1971) studying 53 dual profession families, i.e., where the wives were either attorneys, physicians, or college professors, reported that few husbands help with household chores. Both husbands and wives saw the children and household as the wife's responsiblity. These findings support those of other studies that the division of labor within most families follows more traditional patterns.

Belsizer, *et al.* (1966) reported results of surveys in Ohio of employed and unemployed wives which found that unemployed wives were more likely to own home freezers, automatic washers, electric sewing machines and vacuum cleaners. Ownership of small electrical appliances was comparable for both groups. No radical differences existed between the two groups in eating away from home (except lunch) nor in baking frequency. Employed homemakers utilized more housework, laundry, sewing and child care services than the unemployed. Child care was found to be of real concern to working mothers.

Regulating Family Size. The information necessary for planning the size of one's family enables women to exercise greater control over conditions which could render essential employment difficult or impossible, and which could limit the combination of home responsibilities and employment to a range conducive to a satisfying or dissatisfying life. Within this context, pertinent information relative to family planning is drawn from the report of the Interdepartmental Committee on the Status of Women (1968). The report stated that under the Social Security Amendments of 1967, states are obligated to offer family planning services to appropriate clients. These amendments also make it possible for all social workers in departments of welfare to discuss contraception with

people who frequently have inadequate or grossly erroneous knowledge of both procreation and contraception.

In 1967, the Manpower Administration of the Department of Labor recommended to sponsors of training projects that all enrollees be given information on personal hygiene, the reproductive process, and family planning and that arrangements be made for agencies or medical authorities to provide specified enrollees with planning information, services, and supplies.

Maternity Leaves. The Interdepartmental Committee (1968) indicated provisions for maternity leaves are provided for the most part under union contracts, and frequently assure the right to return to a job within a year without loss of seniority. Two states and Puerto Rico provide cash benefits during maternity leave. The Committee indicated that under the Equal Employment Opportunity Commission which administers Title VII of the Civil Rights Act some advances have been made. One ruling is that health plans granting maternity benefits to wives of male employees must include female employees as well; another requires that employers grant recall rights to women after childbirth since not to do this would deny women the same rights as men who have had a sustained illness or convalescence. According to the Commission, a leave of absence should be granted for pregnancy whether or not it is granted for illness.

In October 1970, the Citizens' Advisory Council adopted the following statement of principle:

> Childbirth and complications of pregnancy are for all *job-related* purposes, temporary disabilities and should be treated as such under any health insurance, temporary disability insurance, or sick leave plan of an employer, union or fraternal society. Any policies or practices of an employer or union, written or unwritten, applied to instances of temporary disability other than pregnancy should be applied to incapacity due to pregnancy or childbirth, including policies or practices relating to leaves of absence, restoration or recall to duty and seniority.
>
> No additional or different benefits or restrictions should be applied to disability because of pregnancy or childbirth, and no pregnant woman employee should be in a better position in relation to job-related practices or benefits than an employee similary situated suffering from other disability. (1971, p. 4).

Caring for Children. Reports of the President's Commission on the Status of Women (1963), Interdepartmental Committee (1968), and the Citizens Advisory Council (1971), included statements about need for child care services. In 1963, the Commission stated:

> For the benefit of children, mothers, and society, child care services should be available for children of families at all economic levels. Proper standards of child care must be maintained, whether services are in homes, or in centers. Costs should be met by fees scaled to parents' ability to pay, contributions from voluntary agencies, and public appropriations. (1963, p. 20).

In 1968, the Interdepartmental Committee stated: "the full extent of the need for day care services is more apparent today than ever before; it is

rightfully becoming a question of national concern (p. 5) ." The Committee summarized the child care arrangement of working mothers and reported that since 1963 more funds have been available from federal, state and local resources; that half the states and territories now budget funds for day care; that various federal programs provide day care services for mothers in job training and that the Head Start Program benefited some 55,000 children on a full day, year round basis. They reported that a few unions and industries have begun to start day care centers, e.g., almost 100 hospitals now provide service for the children of nurses and other staff members. Concluding the Committee noted that the number of children being cared for in licensed day care facilities has increased from 200,000 in 1963 to more than 500,000 in 1968 but the facilities do not begin to meet the needs of many millions of children under 14 years of age whose mothers now work.

In 1971, the Citizens Advisory Council reiterated its concern for increasing the availability of day care for children. In a report prepared jointly by the Children's and Women's Bureaus, Low and Spindler (1968) reported that there were 12.3 million children under 14 years of age whose mothers had worked either full or part-time for at least six months; nearly half of these were cared for in their homes while mothers were working. Of this half, fathers cared for 15 percent; relatives other than the father for 21 percent and by a nonrelative for nine percent. Of the 12.3 million, 16 percent were cared for in someone else's home – half by a relative and half by a nonrelative; 13 percent by the mother while she was working; 15 percent had mothers who worked only during school hours, thus requiring no special arrangements; two percent were in nursery schools, day care centers or like facilities. Approximately one percent were cared for in a nonrelative's home, along with six or more children other than her own. Nearly eight percent looked after themselves for a portion of after school hours while the mother was working.

Reported in detail, child care arrangements varied somewhat by age, full or part-time employment of the mother, marital status, family income and mother's occupation. Similarly, findings relative to hours of care per week, cost of care, satisfaction with care, and variations between metropolitan and nonmetropolitan areas and geographical regions were reported. It is of import that of all mothers making some arrangements for child care, mothers expressed satisfaction with the care in the case of 92 percent of the children.

Mead (1970) noted the absence of discussion relative to the care of infants and children under three years of age who need continuity of care and the attention of a single person who understands their first attempts at speech, observes and rewards the acquisition of new skills. Considering various alternatives for mothers who need to work, she pointed out the high cost of infant care and the difficulty of providing it for groups. She explored the impact of returning to breast feeding infants with the pressure to have child care facilities close to places of employment, and flexibility of work schedules which would enable mothers to feed their infants.

For later developmental stages, Mead presented alternatives for increasing a network of stable relationships within the neighborhood which could include

cooperative child care. Concern was voiced for the prevailing emphasis placed on the individual family unit becoming better organized and making more efficient arrangements with cooperation of husband and children, thus reinforcing independence rather than interdependence.

One alternative solution to governmental or private enterprise day care centers – neither of which Mead considered satisfactory – was a universal national service in which young adults would have the option of serving in various community agencies including day care centers. This service would be in lieu of service, for either sex, in the armed forces. Indirect governmental subsidies for community living – including housing – which would minimize the isolation of nuclear families and provide substantial number of "imaginative, responsible, dedicated, voluntary helpers."

Lehmann (1971) described a novel approach to day care for infants. The Peirce-Warwick Agency (day care and adoption service) of the Washington Home for Foundlings, began operating a cribmobile in Spring 1970. In brief, a van was converted to accommodate four infants aged four to eight months with cribs. Two attendants care for them during the day, having picked them up at their homes in the morning, and returning them in the afternoon. The cribmobile is outfitted with five crib berths, overhead toys, mobiles, rattles, and a carpeted floor where babies can crawl. Facilities also include a stove, refrigerator, heating and air conditioning units, sink, disposable unit, hampers and radio. Infants are driven to the city parks in summer, and the 24 foot van is parked in the vicinity of the infants' homes when weather gets colder.

Assessments of the day care center on wheels included cost factors and implications for continuing of care of infants. At present, day care experts both inside and outside government were reported to be cautious in their appraisal to this new approach. Emphasis is given to the nature of the crisis in child care, by the inclusion of recent statistics relative to working mothers with children under six years of age – the employment rate of this group climbed from 20 to 30 percent between 1960 and 1969 – and the number of children under 13 whose mothers work – estimated at 13 million. About $213 million in federal and state funds is expected to be spent on day care through state welfare departments during 1972 fiscal year. This is an increase over the $143 million spent the previous year.

Morgan (1969) considered state level action to improve child services and Mink (1969) discussed proposed federal legislation which would provide financial aid to states in establishing child day care centers.

In brief, women report the criticality of maintaining rigorous time schedules and long hours of sustained activity if they are to achieve a modicum of success in fulfilling the obligations of both homemaking and employment. Some of the difficulties involved in combining homemaking and employment hinge on an implicit assumption that undergirds much planning and scheduling of economic and educational activity, namely that wives and mothers are at home most if not all the time.

Myrdal and Klein (1968) described the lack of synchronization between school schedules and work schedules of parents, the lack of availability of lunch

programs at all schools for all children who wish to remain there; timing of school holidays and vacations. Retail firms have increased the number of hours they are open, as have banks in some areas. However, some services such as appliance repair and deliveries are difficult to obtain in some areas at times other than routine daytime working hours. The problem is increased due to the refusal of agencies to set a specific time for such services even within an eight to five day.

The problems encountered when combining employment with homemaking have been highlighted and publicized through the reports of federal and state commissions concerned with the status of women.

Status of Women Commissions. In 1961, President Kennedy established a Commission on the Status of Women to assess the position of women and the functions they perform in the home, the economy, and in society. The Commission established seven committees, including persons outside the Commission to study in depth the following areas: education; home and community services; private employment, particularly that under federal contracts; employment in the federal government; labor standards; federal social insurance and taxes as they affect women, and the legal treatment of women in respect to civil and political rights (President's Commission on the Status of Women, 1963).

The Commission submitted its report in 1963, with recommendations in the areas studied, and one for the establishment of an Interdepartmental Committee on the Status of Women, to be chaired by a cabinet officer and composed of heads of other agencies within the federal government; and to be counseled by a citizen's committee relative to progress made and action to be stimulated. The Interdepartmental Committee was established and in 1968 submitted its report *American Women 1963-1968*.

The Women's Bureau (U.S. Department of Labor, 1969a) provided information on the Commission and the Committee as well as state and local level commissions. Reports of both the Commission and Interdepartmental Committee reflect, by the descriptive information included and the subsequent recommendations, the stress points in the lives of women who by necessity or choice work in both the home and some sector of the economy. Sections of both reports focus on child care, family services, family planning, tax deductions for working mothers, and maternity leave, among others, and pertinent information has been included above.

The Committee report also included information relative to unemployment insurance, benefits for widows and divorced wives, wages, hours, and standards for weightlifting and night work.

A number of states established commissions on the status of women. The Citizens Advisory Council on the Status of Women held a national conference for state commissions in July, 1965. The report of the Council (1966) included these key ideas: 1) women should recognize and fulfill the responsibilities which accompany newly acquired rights; 2) benefits of labor standards acquired for women should be extended to men where this is appropriate and possible; 3) fathers, husbands, and brothers must be educated to encourage aspirations

and achievement of girls and women; and 4) women should pursue excellence in education, family life, community participation and employment.

Reports of statewide conferences and meetings of state level commissions are available. Those which came to the fore in searches for this review were: Iowa (1964), Governor's Committee (1964), *Utah Women, Opportunities, Responsibilities* (Shaw, 1966) and the U.S. Department of Labor: Conference on Women in the Upper Peninsula, Michigan, 1964; Arrowhead Regional Conference on Status of Women in Northern Minnesota, 1964; and New Horizons for North Dakota Women, 1964. Conference reports varied, but in general examined the status of women within the state along the lines followed by the President's Commission on the Status of Women.

State Level Studies. State level studies describe women in the labor force.

Bittner (1965) concluded from interviews with individuals and employers in 25 towns and villages in Alaska that job opportunities were more plentiful in larger towns for trained women but were scarce for the untrained. The report contains information on the economy, geography, health services, educational facilities and employment of women.

Women Workers in California, 1949-1967 (California, 1968) presented data on women wage and salary workers by industry and year, in nonagricultural establishments. The least number of women were employed in shipbuilding and the most in trade. *California Womanpower* (California, 1966) reported that 34 out of every hundred workers were women. The distribution of women among the various areas was reported. The report also included information on education, earnings and responsibilities as compared to men based on the 1960 census.

A. Smith, *et al.* (1964) reported that for Illinois, women comprised about 33 percent of the total labor force. Data from the 1960 census is used to report the demographic characteristics of women workers.

The Oregon State Bureau of Labor (1968) reported on the socioeconomic living pattern of Oregon women with dependents. Questionnaire responses from 735 employed or employable women indicated the following problems: 1) being erroneously viewed as a supplemental wage earner led to lower wages; 2) the cost of training necessary for advancement on the job is out of reach for many; 3) child care and transportation factors preclude accepting positions for which women are qualified; 4) women with dependents are in need of financial and legal counsel. Subsequent recommendations responded to the problems cited.

Labor force information pertaining to women in particular states and Puerto Rico included a description of the labor force work experience in Puerto Rico for 1967 and 1968 (Puerto Rico Department of Labor, 1968).

Occupations of Women

Bird (1968), Gordon (1968), Ginzberg (1968b), Lewis (1968), McNally (1968), Oppenheimer (1968), *The Handbook on Women Workers* (U.S. Department of Labor, 1969a), Hedges (1970) and Kreps (1971) provide information relative to the occupational status of women. Hedges (1970) stated

that although more than 250 distinct occupations are listed in Bureau of the Census tabulations, half of all women workers were employed in only 21 of them in 1969 in contrast to half of male workers in 65 occupations. McNally (1968) pointed out that professional feminists to the contrary, most women seem content to do the work that women have always done, school teaching, nursing, library work, typing, clerical work, retail selling, service jobs and certain types of light industrial jobs. She stated that although breakthroughs by women into new occupations appear as dramatic instances in the press, they are almost impossible to quantify until a substantial number of women are engaged in a particular kind of work. Both McNally and the 1969 *Handbook* pointed out that detailed breakdowns by occupations necessitate large numbers, and thus the 1960 census is the most recent source of data.

The 1969 *Handbook* reported the detailed occupations in which 100,000 or more women were employed (see Table 6).

According to McNally (1968) between 1950 and 1960 the rate of increase in employment of women was greater than that for men in about 80 occupations which had at least 5,000 women and 10,000 men in 1960. In a few growing occupations, the employment of men dropped and that of women increased as they probably replaced men. She specified this mixed lot as including: teachers, n.e.c. (not elsewhere classified) teaching outside the elementary or secondary school system or colleges; bookkeepers; secretaries; ticket, station, or express agents; typists; salesmen, n.e.c. in retail trade; compositors and typesetters; decorators and window dressers; operatives and kindred workers in manufacturing of miscellaneous wood products; cutlery, hand tools, and hardware; apparel and accessories; private household workers living out; and waiters.

Within specific occupational areas McNally reported:

> In the professional and technical occupations, law and medicine recorded greater percentage increases for women than for men, but the Census reports only 7,400 women as lawyers and judges in 1960 and only 15,500 as physicians and surgeons. Very fast growing occupations for women were teachers, n.e.c., public relations and publicity, recreation, sports instructors, and personnel and labor relations workers--all more than doubled. Women working as medical and dental technicians almost doubled in number. In none of the engineering or scientific occupations did women outpace men except for mechanical engineers, where the number of women is too small to be considered significant.
>
> In the managerial and official group, the rate of increase for women was double that for men in occupations such as officials in local public administration, salaried managers in transportation and wholesale trade, and self-employed workers in business services. Managerial jobs in banking, insurance, and in business services also expanded at a very rapid rate for women, although they still constituted far less than half of the total in 1960. As managers of retail trade establishments, they did particularly well in eating, and drinking places, and in general merchandise and limited price variety stores.
>
> Clerical work has long been an open field for women. Their rate of growth far exceeded that of men as bank tellers, bill collectors,

TABLE 6
DETAILED OCCUPATIONS IN WHICH 100,000 OR MORE WOMEN WERE EMPLOYED, 1960
(Women 14 years of age and over)

Occupation	As percent of total employed
Secretaries	97
Sales women (retail trade)	54
Private household workers (n.e.c.)	96
Teachers (elementary school)	86
Bookkeepers	84
Waitresses	87
Nurses (professional)	98
Sewers and stitchers (mfg.)	94
Typists	95
Cashiers	78
Cooks (except private household)	64
Telephone operators	96
Babysitters	98
Attendants (hospitals and other institutions)	74
Laundry and drycleaning operatives	72
Assemblers	44
Operatives (apparel and accessories)	75
Hairdressers and cosmetologists	89
Packers and wrappers (n.e.c.)	60
Stenographers	96
Teachers (secondary school)	47
Office machine operators	74
Checkers, examiners, and inspectors (mfg.)	45
Practical nurses	96
Kitchen workers (n.e.c.) (except private household)	59
Chambermaids and maids (except private household)	98
Housekeepers (private household)	99
Operatives (electrical machinery, equipment, and supplies)	48
Receptionists	98
Charwomen and cleaners	68
Housekeepers and stewardesses (except private household)	81
Dressmakers and seamstresses (except factory)	97
Counter and fountain workers	71
File clerks	86
Musicians and music teachers	57
Operatives (yarn, thread, and fabric mills)	44

Source: Table 41, *Women's Bureau 1969 Handbook on Women Workers.*

insurance adjusters, examiners and investigators, payroll and time clerks, postal clerks, stock clerks and store keepers, and miscellaneous agents.

Among sales workers, insurance agents and real estate agents were rapidly growing occupations for women, and the occupation of hucksters and peddlers showed phenomenal growth (899 percent) with the spread of door-to-door selling (e.g., Avon products) and the vogue for organizing parties in the home for demonstrations and selling.

Few inroads into the craft occupations were made by women at the expense of men other than those mentioned. Jobs as foremen in the textile manufacturing industry increased more rapidly for women than for men.

As operatives and kindred workers, great percentage gains relative to those of men were noted in assembly jobs; bus drivers; deliverymen and routemen; meat cutters (except slaughter and packing house); welders and flame throwers; and as miscellaneous operatives in manufacturing of primary nonferrous metals, aircraft and parts, meat products, and canning of fruits and vegetables.

As service workers, much greater relative increases for women than for men were posted for attendants in hospitals and other institutions; cleaners; cooks (except private household); counter and fountain workers; guards and doorkeepers; policemen; and crossing watchmen (the school patrol--up 2,427 percent). Clearly most of these are extensions into the market place of functions that previously were performed by mothers and by housewives and servants.

Women actually overtook men in absolute numbers as therapists, n.e.c., bank tellers, payroll and timekeeping clerks, hucksters and peddlers, miscellaneous salesmen in retail trade, and as operatives in manufacturing of leather footwear and other leather products (p. 213).

Oppenheimer (1968), acknowledging the difficulties involved in rigorously testing theories for sex-labeling of occupations, identified major reasons for the utilization of women in certain jobs and not others. These include: labor costs and availability, skilled cheap labor, sex-linked characteristics, pre-job training, tradition, mixed work groups and women supervisors, necessity for career continuity, motivation, geographical mobility. Having presented supportive data, she summarized the relationships between these variables and occupations as follows:

> Female jobs, on the whole, exhibit characteristics which promote the attachment of the female sex label and lack characteristics which would favor the employment of male workers. For example, three major female professions--nursing, teaching, and librarianship--depend on skilled but cheap labor in fairly large quantities; they are traditionally female occupations; most of the training for them is acquired *before* employment; and career continuity is not essential. These jobs exist all over the country, hence mobility or the lack of it is not usually a serious handicap. Diligence and a certain devotion to the job are required, but long-range commitments and extensive sacrifices of time and energy are not necessary. Employment in such occupations relatively infrequently puts the worker in a supervisory

position over male employees, although she may be in a position of relative power over those outside the organization. Nurses, for example, may initiate action for patients, but their authority to do so is derived from the attending physician; furthermore, the authority and the task has a distinctly femine flavor--that of the nurturing female.

All in all, the characteristics of the female professions tend to encourage the employment of women. The opposite is the case for the predominantly male professions--law, medicine, dentistry, architecture, university teaching and administration, and the clergy, among others. These occupations are traditionally male--some, such as engineering, to an overwhelming degree. Great investments of time, energy, and devotion are required; extensive, often difficult schooling and a lifetime of overtime work are frequently associated with such professions. Continuity is usually essential, and the freedom to move or not to move, depending on the exigencies of the career, may be all-important factors in whether or not success is achieved. With the exception of extensive education (although increasingly a B.A. is a minimum requirement and some graduate work in business administration meets with considerable favor), the same factors are important in managerial occupations. Here, the reluctance to utilize women in supervisory positions is also an important factor.

To turn now to other white-collar occupations, clerical work requires cheap but fairly well-educated labor. Training is achieved mainly before entrance into the labor market. The work is traditionally female and requires characteristics supposedly more typical of women than men--manual dexterity, plus a tolerance of monotonous and routine tasks. Here, as in other women's jobs, a strongly developed sense of commitment is unnecessary; geographical mobility is not essential and career countinuity is not important, as most of these jobs have no future anyway.

Retail sales presents a somewhat similar case. Skill is even less a factor. Many retail jobs are traditionally female, particularly where the customer is expected to be a woman. None of the characteristics of predominantly male occupations seems to be in evidence--the importance of career continuity, geographical mobility, or high motivation hardly enter the picture. Male sales jobs, on the other hand, differ in several important respects from female sales jobs. On the retail side, men usually sell men's wear or expensive items like furniture, appliances, or jewelry. In wholesale trade, where men predominate, considerable sums may be involved, as sales tend to be in quantity. Career continuity may not be significant; however, if the ultimate goal is to rise into a managerial position in the company, continuity may be essential. Finally, many salesmen have to travel often. Women, especially married women, are usually not willing or able to leave their families frequently or for extended periods of time.

Similar divisions exist in manual jobs. Most craft occupations in the United States are traditionally male and control over recruitment tends to keep them that way. Both men and women hold operative jobs, but not the same jobs. There is a strong tendency to label

certain operative jobs female and others male, with women concentrated in the lower paid jobs. Here the presumed male (strength) or female (manual dexterity) characteristics may be important factors in sex-labeling. In addition, the problems arising from mixed work groups or women in supervisory positions over men may be particularly acute with semiskilled workers.

In sum, then, there are many excellent reasons why we can expect to find the extensive sex-labeling of jobs indicated by the data presented in the first part of this article. What is surprising perhaps is not that men and women usually compete in separate labor markets, but that male labor is ever substituted for female or female for male (pp. 233-34).

Potential Occupations and Opportunities for Women

Hedges (1970) provided an excellent analysis of women workers and manpower demands of the 1970's. Directly to the point, she stated "Many more women workers in the 1970's must prepare to enter work outside the traditional 'women's occupations' if they are to find jobs in keeping with their abilities (p. 1?)." Drucker (1971), considering economic developments in the context of population dynamics, noted

> that the shift from 'abundant jobs for college graduates' in 1969 to a 'scarcity of jobs for college graduates' in 1971 is a result of the overabundance of college graduates which will continue until the end of the decade, even if the economy starts expanding again at a fast clip (p. 37).

Citing the decline in the number of teachers needed during the seventies and the reasons for this, he indicated that this has been partly offset by increasing demand for computer programmers, medical technologists, and employees in local governments. Drucker noted that a number of young women will decide to work and as they look for jobs in fields other than teaching, they will be competing with young men for jobs and increasing pressures for jobs.

McNally (1968) stated that "the sheer pressure of numbers now and in the next few years . . . will force some young women into new fields. There may not be enough of the old familiar jobs at satisfactory salaries to go around (p. 215)."

Hedges (1970) concluded that the high concentration of women workers in a narrow range of occupations was valid at one time, but few of these concentrations are valid today. Noting that traditional occupations were an extension of work performed by women in the home to a business or industrial setting, she pointed out that the growth rates of these occupations permitted the hiring of women year after year. Job requirements such as lifting or carrying weights beyond the capacities of most women, or advanced degrees or professional degrees which fewer women than men have, contributed to the concentration also. Granting this, however, discrimination and widely held prejudices that some jobs are feminine while others are masculine have artificially restricted women's jobs far beyond the limits set by job requirements or working conditions.

Hedges' analysis concurs with that of McNally's (1968) presented above that the distribution of women in the occupational structure deviated substantially from what might have been expected on the basis of increase in the total female labor force relative to the total civilian labor force and the growth in each occupation. In brief, employment patterns of women were not proportionately reflecting changes in demand. Hedges emphasized that the history of labor force participation of women – participation which now includes in some proportion every major group of women (i.e., age, race, marital status, and mothers) – indicates that the long-term outlook is that women will continue to constitute a large share of the civilian labor force.

Considering Drucker's analysis (1971), families in the seventies will continue to experience – perhaps even more so than in the past – the economic pressures which have motivated women to work. The nation, according to Hedges (1970) requires the labor which women can provide. "But the requirements are becoming more and more specific (p. 21)."

Hedges specified that professions in need of workers include: medicine, dentistry, engineering, architecture, drafting, law, science, engineering, technician, and veterinarian. She presented detailed information concerning manpower needs and financial assistance for education in medicine, dentistry, engineering and science. With reference to engineering and science, she acknowledged the recent slowdowns have affected the short-term demand, but stated that long-term prospects are good. To counter resistance concerning abilities, she reported that in a U.S. Department of Labor study of 11th grade students, two-thirds as many women as men (eight and 12 percent of the population respectively) have engineering aptitude.

Describing the skilled trades, she emphasized that no other major occupational group illustrates as well, the effect of the concept of "masculine" and "feminine" occupations based in large part on erroneous assumptions of wide differences in aptitude between the sexes. Basic requirements that run throughout the skilled trades are finger and hand dexterity, and eye-hand coordination, together with aptitude for form and space perception. These aptitudes are found as frequently among girls as boys, yet only three percent of the craftsmen in 1968 were women. Included among a number of crafts are: office machine repairman, radio and television repairman, automobile mechanic, aircraft mechanic, and household appliance repairman.

The U.S. Air Force has trained women as electronic auto pilot mechanics, aircraft and instrument and control systems inspectors, aircraft flight line mechanics, aircraft sheet metal repairers, radar repairers, and many other skilled trades.

The employment outlook in the skilled trades or crafts generally is excellent. The need for these workers is expected to increase from 10 million to 12.2 million between 1968 and 1980. The number of repairmen and mechanics is expected to grow more rapidly than the skilled work force as a whole. Wages in these areas are usually higher, than in operative, sales, or service occupations; training costs generally are low. Jobs in the skilled trades exist in almost every community, an asset for a woman whose geographical location is frequently determined by her husband's employment.

Specialities within areas are identified and include: appliance servicemen; repair of small appliances such as coffee makers, food blenders, and hair dryers; business machine servicemen, electronic computers, various types of electronic calculators, statistical machines and dictating-transcribing equipment; automotive mechanics, tune-up men, bonders, brake mechanics, automatic window-seat and top-life repairmen, and automotive electricians.

Projected outcomes if women continue to concentrate in traditional "women's occupations," are increasing competition, rising unemployment with the possibility of depressed wage rates and a decline in women's labor force participation.

Kreps (1971), utilizing data about selected occupations from several reports, pointed out that the patterns of expected growth in the traditional women's jobs is mixed. Of the seven occupations dominated by women (50 percent or more of all workers), only one – medical laboratory worker – will be a very high growth occupation. Registered nurses, clerical, and social workers will see high rates of increases. Elementary teaching will have a growth rate significantly lower than the average for all occupations. Service workers also will see only a small increase in numbers. Women constitute about 40 percent of the total numbers of workers in the fastest growing occupations, systems analysts and programmers.

Koontz (1970a) reported that women apprentices have completed training in over 60 occupations, such as laboratory technicians, test equipment repairmen, plastic workers, draftsmen and aircraft mechanics. They are also apprenticed as bookbinders, jewelers, lithographers, and optical technicians. She emphasized the need for technicians, noting that the U.S. Office of Education reports a need for 200,000 technicians of all kinds each year, yet the number graduating from preparatory programs each year is less than half the number required. She recommended that women be encouraged to enter such fields as printing, electronics, environmental control, rehabilitation, therapy, radiology, dairy production, horticulture, conservation and soil science.

In two recent articles, Kropf (1969) and Schaefer (1969) described careers for women in banking and real estate.

In sum, manpower needs will increase during the seventies in a number of areas. High growth occupations include some traditional "women's" occupations, but others are outside of that narrow range. The seventies should provide some evidence concerning the adaptability of women to a changing occupational structure, and the ability of educators and employers to overcome subjective impressions and prejudices so that the needed programs are provided and the resulting qualified workers are employed.

Educational Programs

Overview. Two publications from the Women's Bureau, one *Future Jobs for High School Girls* by Hedges (1966) and the other *Job Training Suggestions for Women and Girls* (U.S. Department of Labor, Women's Bureau, 1965) provide an overview of the settings in which training can be obtained, the types of training available, and the jobs for which training is available. *Job Training Suggestions for Women and Girls* stated that public trade and high schools,

junior and community colleges, private business, trade and technical schools, in-service training programs in companies, federally aided manpower programs, apprenticeships and home study courses provide job training.

Public vocational courses specified include: beauty operator, commercial artists, dental technician, electronics technician, food trades worker, hospital aide, household worker, practical nurse, real estate agent, saleswoman, textile worker. Special program offerings were also listed with the school offering the program and include drafting, medical assistants, physical therapy assistants, surgical technicians, inhalation therapists, production line workers in electronics assembly plants, hotel training for front office clerks, hotel maid, linen room attendant, office machine operator, switchboard operator, waitress, and hostess.

Programs in community and junior colleges listed were: accounting, dental hygiene, fashion design, food-service administration, secretarial specialties – legal, medical, technical – nursing, scientific technology, electronic data processing, engineering aide work, medical technology.

Private business, trade and technical schools offer various programs specified above and some additional programs, photography and salesmanship programs.

Apprenticeship programs combine at least two years of work experience with 144 hours per year of related instruction. The apprenticeship office in each state can supply detailed information on available courses. The leaflet (U.S. Department of Labor, 1968b) stated that among the few women employed as apprentice trainees, most are being trained in cosmetology and bookbinding, others in dressmaking, fur finishing, fabric cutting, tailoring, printing and dental technician work. Other occupations described by Bureau publications include, public relations, medical technology, pharmacy, optometry, engineering, skilled trades, and clerical.

The format of *Future Jobs for High School Girls* prefaces job information with information about combining marriage and career, and the probabilities of work being an important part of their lives. It is designed for use by high school girls, but would be valuable to many women planning to reenter the labor force. It presents information about gaining more education by utilizing low cost arrangements, scholarships, part-time jobs and loan funds and obtaining training and job experience. Of specific occupations in the areas of health services, clerical occupations, retailing, food services, factory work, technical work in engineering and science, 44 are described in terms of duties, aptitudes, education or training requirements, place of training, advancement opportunites, licensing requirements, and special related legislation. A suggested form for a job application is included as well as a list of publications giving additional occupational information. Girls who see themselves as having the ability and interest are encouraged to consider colleges. *Job Horizons for College Women* (U.S. Departmen of Labor, 1967a) provides pertinent information.

Federally Funded Manpower Programs. Federally aided manpower programs which provide assistance and training for women and girls who find it especially difficult to obtain employment include: Youth Opportunity Center, where young men and women receive special services; Manpower Development and Training Act (MDTA) programs, which may be classroom courses or on-the-job training; Community Action Agency (CAA) which provides a variety of other

work experience and training programs. The Concentrated Employment Program (CEP) includes the Neighborhood Youth Corps (NYC), which provides work experience training to disadvantaged youth to enable them to stay in school or to return if they have dropped out; New Careers Program, which provides training for career-ladder positions with public and private nonprofit agencies in fields of health, education, welfare, neighborhood development and public safety; Operation Mainstream, which provides meaningful work experience and job preparation for those unable to obtain a job because of age or other reasons; Job Opportunities in the Business Sector (JOBS), on-the-job training program in private industry for hard core unemployed workers in the 50 largest cities of the country; The Work Incentive Program (WIN), which provides training opportunities and special work projects to persons 16 years of age and older, in families receiving Aid to Families with Dependent Children. Job Corps includes training centers for girls between 16 and 21 year of age. Most centers are residential schools.

According to the *1971 Manpower Report of the President* (U.S. Department of Labor, 1971) in 1970, women constituted about 40 percent of trainees enrolled in Institutional Training Programs under MDTA; 34 percent in On-the-Job Training Programs; 50 percent of in-school youth and 52 percent of out of school youth in NYC Projects; 29 percent of persons enrolled in Operation Mainstream; 43 percent in CEP; 65 percent in WIN; about 31 percent of those in JOBS; and 26 percent of the youth in the Job Corps. According to the *1970 Manpower Report of the President*, new Job Corps centers are being opened as a result of reorganizing and closing some centers. Approximately 35 percent of the openings in these new centers are planned for women, some unmarried mothers for whom child care services will be provided in the center of the community.

Delehanty and Mishnun (1966) reported that between 1962 and May 1965, about 65,000 persons (40 percent women) received training in service and related occupations under MDTA. Most enrollees prepared for specific occupations. About two-thirds of the women were in licensed practical nursing or hospital attendant courses. Over 40 percent of all trainees had been unemployed 15 weeks or longer. Of those completing training through May 1965, 73 percent found employment, largely in training related occupations and at higher wages than before training.

Frank (1969) reported the results of an internal study of On-the-Job Training for Minorities in secretarial and clerical skills. Using observations, formal and informal interviewing, questionnaire and attitude surveys, he concluded that 69 percent of trainee time was spent doing little that contributed to skill development. Recommendations were made for restructuring this program and others like it.

Walther (1967) summarized retrospective studies of the Effectiveness of Neighborhood Youth Corps Out-of-School Programs in four urban sites. The purpose was to measure the effectiveness of programs, which was judged by community and work adjustments of enrollees. Experimental and control groups were selected in four cities. The samples were mainly blacks with more female than male youths. On the basis of findings from interviews, he concluded the

program was effective but needed improvement in racial and sex balance of enrollees among other recommendations.

An OEO publication (1969) specified the jobs for which Job Corps Centers provide training and at which center the program is offered. Professional, technical, and managerial occupations include areas in medicine and health, such as registered nurse, inhalation therapist, X-ray clerk; education, i.e., teacher aide and teacher assistant; art, e.g., commercial designer aide, floral designer assistant; administrative specialization, assistant buyer. Within the clerical and sales occupations, stenography, typing, filing and related occupations are available; computing and account recording occupations; material and production recording occupations, e.g., receiving clerk, stock clerk, etc.; information and message distribution, e.g., mail clerk; salesman, service and commodities; merchandising except salesmen, e.g., grocery checker, retail sales clerk.

Service occupations included preparation for domestic service, food and beverage preparation and service, cosmetology and barbering, apparel and furnishings, law enforcement protective service and so on. Machine trades included paperworking, e.g., book trimmer, printing occupations, and textile occupations, e.g., knitting machine operator.

Lippeatt (1967) in a speech before trade and industrial educators discussed the Job Corps as a means of reducing the underutilization of girls and women.

The Women's Talent Corps was funded by an Office of Economic Opportunity grant to initiate a program to train women from low-income areas to serve as paraprofessionals in community service agencies in New York. The program was also to create permanent jobs where none had previously existed in these agencies, by demonstrating what trained community women could do. It was hoped that paraprofessionals from the community in these agencies would help reduce hostility and distrust between professionals and the community. A training institute was established using both classroom and on-the-job experience. Major accomplishments of the project were cited by Walton (1968) and included: providing paid employment for all graduates in the human service field; creating new paraprofessional jobs in New York City schools; establishing a College of Human Services to insure continued professional growth of new careerists in community service fields; and stimulating personal and intellectual growth in a group of underprivileged community women.

Clawson (1970) reported on MDTA programs which served women. A training model program was established for the Social Health Technician, a new and versatile type of nonprofessional worker capable of performing a broad range of health, social work, and teacher assistant roles. The New Careers program at Howard University demonstrated that multi-problem youth and adults could be motivated and trained to work on subprofessional jobs in a positive and constructive relationship to professional and supervisory staffs in health, education, and welfare.

Project "Fresh Start" provided work orientation, occupational training, job placement and follow-up to women released from the Detroit House of Correction. Project "Rejoin" worked with 67 socially maladjusted girls (15 to 19 years of age) remanded by courts and family service agencies to the program in

Peekskill, New York. The center equipped the girls with vocational skills using a cluster approach as well as social, psychological and medical rehabilitation.

A National Committee on Careers in Medical Technology was established to promote training for these positions, throughout the country, and to explore the inclusion of disadvantaged persons (i.e., physically handicapped, middle-aged economically deprived, and minority persons) as well as those who would normally qualify. Sixty-six new programs were initiated and it was found that almost all types of disadvantaged persons are trainable.

Clawson described efforts in seven cities to produce highly trained household workers and to raise and improve working conditions in household occupations. Sponsors of these programs were varied. A strong training component was included. The project committee concluded that despite serious roadblocks a number of women want to work in this area if conditions can be upgraded. The demand for such workers proved to exceed the supply.

The National Committee on Household Employment (1966) has published a *Handbook for Leaders*. This handbook includes material to assist local community leaders in gaining community support for job development and training programs for household workers.

Other Innovative Programs. Bumstead (1971) gave account of an experimental program in New York to prepare nurses' aides to become licensed practical nurses. The program was arranged to test the proposition that despite lack of credentials and long absence from a classroom, the average nurses' aide, if given academic support, personal counseling and job and income protection could be trained as a licensed pratical nurse. Completing the first 15 month course were 147 nurses' aides. Over a three year period 91 percent of the 463 nurses' aides who entered the program graduated.

Braddock (1966) described an eight month program to teach standard speech to 90 young women of whom 75 were black. Employers in New Orleans had cited poor speech as the reason for not employing applicants for secretarial positions. In the program, standard speech was taught as a second language with extensive use made of the language laboratory. In addition, intensive instruction was given in typing, shorthand, spelling and personal grooming. Over three-fourths found jobs soon after graduation, some in previously all-white firms. Few dropped out of this program initiated at St. Mary's Dominican College.

The University of South Florida (1968) reported on a program for 516 women, age 17 to 25 years, referred through Neighborhood and Youth Opportunity Centers. Improved communication skills, social, and occupational skills were objectives of this program. Instruction included programmed instruction and immediate reinforcement. Various aspects contributing to effectiveness were identified.

Writing in the American Vocational Association *Research Visibility, 1968-69,* Law (1969) directed attention to vocational education for girls and women, and described recent reports on new directions in business education, wage-earning occupations in home economics, curriculum development and work instruction programs in food service occupations, and health technology programs.

Brandon (1970) directed the focus of "Research Visibility" on educating women for the world of work. Materials reviewed included new ideas and programs for women. Among these were home economics related occupations, skilled trades for girls, older women entering white-collar labor force, and continuing education of women. A bibliography of additional studies was included.

Burzynski (1970) emphasized the need to establish technical education for women in the seventies. She described the development of a core curriculum at Springfield Technical Community College to include communication skills, human relations subjects, and fundamental medical courses. Preparation in 11 areas of specialization can branch from this core.

Within vocational education, the proportion of women students in the different areas reflect, in part, the distribution of women among various occupations. The *Women's Bureau Handbook* (1969a) reported that in 1966-67 close to 95 percent of the students in health occupations and home economics were women; slightly over three-fourths of the students in office occupations, 45 percent in distributive education, close to 11 percent in trade and industrial, and about nine percent in technical education. The Review and Synthesis series from The Ohio Center for Vocational Education includes reviews of research in each of these areas which provide information relevant to programs available to women.

Education For Dual Roles. In addition to acquiring occupational skills, many girls and women could potentially benefit from some direct attention to combining marriage and work, or preparation for dual roles as it is frequently labeled. Hughes (1969) described the development and evaluation of a curriculum package on preparation for dual roles. Dual-role study materials designed for a month-long unit for secondary students were planned cooperatively with selected teachers. The subtopics included in the unit were why women become both homemakers and wage earners; making the decision about employment; costs of employment, provision for care of children, and money management. Slide series were included in materials. The curriculum package was tested with 604 high school juniors and seniors enrolled in home economics classes in a number of schools in New York State. Hughes concluded from the evaluation phase of the project that "for the most part, data support the statement that the package was useful to a variety of teachers and made a real contribution to the learning of students in classes which included large numbers of the academically less able (p. 358)."

Dalrymple, *et al.* (1970) reported on a curriculum, *Preparation for a Dual Role: Homemaker-Wage Earner With Adaptations to Inner City Youth.* A cooperative project, funded by the U.S. Office of Education, initiated the development and evaluation of the curriculum for a home economics course. Areas were: Skills for Living, which included the concepts of self-concept, dual role; Introduction to Skills for Employment in Food Service, which included the concept, employment; Skills for Homemaking, which included the concept of family and management as a working homemaker.

Vetter (1970) described a curriculum unit for girls "Planning Ahead for the World of Work," which was developed and field tested. The content of the unit

was selected on the basis of findings from a study of high school senior girls which found they "were not well informed about the probable nature and extent of their future vocational participation" (Lee, *et al.*, 1971, p. 2). The unit was tested with 326 seventh, ninth, and 11th grade girls enrolled in home economics classes in Ohio and Tennessee.

Vetter recommended that although suitable for all three grade levels, results of immediate retest indicated that optimal use would be at the ninth grade level. She reported how specimen sets of the materials package could be obtained. The materials for students include, "Looking Ahead to Your Occupation," "After School – What?", "Working Women . . . Who Are They?", "Modern Women: The Uneasy Life and What's in My Future?"

Continuing Education. As Garfinkle (1967) emphasized, preparation for reentry into the labor force, which often begins the longest period in the labor force, is at *least* as important as some vocational preparation for initial entry in the late teens or early twenties. The programs described above include some which are available to mature women seeking to update old skills or to acquire new skills. Continuing education programs for women, in large part, are planned for women who wish to enter or reenter college seeking a bacculaureate, or graduate degree, and women who graduated from college in their twenties and wish to reenter the labor force at a level commensurate with their education. Continuing education is viewed by some as not serving as preparation for employment, but for enrichment, however both components are frequently included. The Women's Bureau (U.S. Department of Labor, 1968a) listed institutions having programs with related information.

A number of conferences were held to consider continuing education for women. Speakers typically directed comments to women's roles in a changing world, the role of education, and existing and projected programs to benefit women. Conferences which were directed to education for reentry in the work force include remarks on the employment of women and opportunities open to them. Reports from some of these conferences are available, Dennis (1963), Boston University (1963), Keyserling (1967a, 1967b), Lloyd (1964), University of Michigan (1965, 1966), Washington State University (1968).

Schletzer *et al.* (1967) reported for a five year period, the results of a pilot project supported by the Carnegie Corporation for The Women's Continuing Education Program at the University of Minnesota. The more than 2,600 women enrolled were in their 30's and early 40's; middle class, married, had children, had less than four years of college and were interested in training for vocations. She recommended reevaluation of traditional university regulations. The program featured experimental liberal arts seminars, placement service, child care center, counseling, scholarships, undergraduate and communications programs.

Buccieri (1970) reported that at least 300 campuses feature special programs for women. She reviewed programs at University of Michigan, Sarah Lawrence, and Radcliff.

Farmingdale Agricultural and Technical College (1967) described special programs under Title I. Two noncredit day-time programs were "Gateway to

Careers for Women" and "Medicare-Aide Training Program" to train men and women to serve as paid or volunteer nurses' aides. In the following year, the curriculum was to be expanded to train teacher aides.

Guidance centers specifically to serve women were established in several counties in New York State. The first annual report of the New York State Guidance Center for Women at Rockland Community College indicated that 483 women were counseled and another 800 used their information services. The Center's counseling records indicated that while women considering employment or further education need guidance and information and are willing to seek it, husbands' attitudes, inflexible work and school schedules, fears of impersonal work situations and inability to compete with younger students deter them from returning to work or school (New York State Guidance Center for Women, 1967). Westervelt (1968) reported on efforts to evaluate the various aspects of the Center operation from 1966 to 1968. State funds for the Center as a pilot project were cut, however it continued as an agency of Rockland Community College.

The Educational Programs Information Center (1968) at Farmingdale, New York, prepared a directory of training programs on educational institutions on Long Island.

The Nassau County Vocational Center For Women reported its activities which include information and referral services, counseling and testing, special programs and events (1969).

Cass (1969) and Buccieri (1970) described Catalyst, a national nonprofit organization to place mature women in part-time positions in education, science and industry, and social work.

Manpower needs have prompted some organizations to develop ways to prepare mature women to meet the need. Lacy (1970) reported on such an effort undertaken by Camp Fire Girls, Inc. and Girl Scouts of the U.S.A. to recruit and train persons to provide various community agency services to children and their families in urban areas. He described the recruiting and selection of trainees, a 10 week training program, placement of trainees and program evaluation. Reporting that 46 percent of trainees were placed, he stated that other measurable results were positive and impressive. Agencies in which trainees were placed were specified. The project was funded by the U.S. Department of Labor. The final report is also available (Camp Fire Girls;Girl Scouts, 1968).

Thompson (1970) reported that when the shortage of trained computer programmers became critical to the point of threatening the successful introduction of the computer into operations of the Missouri Division of Mental Disease, the decision was made to advertise for mature housewives interested in becoming programmers. He described the selection of trainees, the training, the subsequent part-time employment, and concluded that "as far as the Institute is concerned the program has been a rousing success (p. 234)."

Several annotated bibliographies on careers for college women and continuing education are available. See ERIC Clearinghouse for Adult Education, (1967); Spiegel, (1967); and Watermulder (1968).

Summary. In brief, programs to prepare women for employment are designed and implemented in secondary schools, post-secondary institutes and community colleges, private firms, and community agencies, and through federally funded programs. With the concern on youth, it is questionable whether the accessibility of programs is adequate for mature women who seek reentry into the labor force. There is no basis for thinking that the limited number of options for girls in secondary schools, reported by Kaufman *et al.* (1967) has changed in any measurable degree. Based on manpower projections for the seventies, there is considerable reason to think that the options available to women of all ages need to be expanded to occupations heretofore and aritficially labeled as masculine.

Career Development of Women

Theoretical Considerations. Although it exceeds the purview of this endeavor to attempt a systematic and comprehensive review of research in this area, some review and synthesis merits inclusion. Perrone (1966), Tennyson (1968), and Holland and Whitney (1969) have reviewed research in vocational development and career development. A reading of these reviews lends support to the statements of Psathas (1968) and that of Vetter (1970, p. 28), "Although considerable research activity has been focused on vocational and career development in the past 20 years, it has concentrated almost exclusively on male subjects."

According to Holland and Whitney (1969) genuine elements of career development are vocational theory, vocational choice, and work history. Research relevant to career development includes those studies which focus on determinants, predictions, and classifications of these behaviors and patterns of vocational preferences for various intervals in time.

Holland (1964) described the theoretical models of major programs of research on vocational behavior which included the work of Super, Tiedeman, Roe, and Holland. He indicated that Super views the individual's vocational preferences and career patterns as attempts to implement a self-concept. The self-concept is the outcome of a developmental history characterized by specific tasks and experiences.

Tiedeman, Holland stated, views vocational development as "the process of fashioning a vocational identity through differentiation and integration of personality as one confronts the problem of work in living (Holland, 1964, p. 267)."

Roe considers a knowledge of personality and family background to be fundamental to understanding vocational behavior. Roe theorizes that the child's early experiences with his parents create or foster "basic attitudes, interests, and capacities which will be given expression in the general pattern of the adult's life, in his personal relations, in his emotional reactions, in his activities and in his vocational choice (Holland, 1964, p. 269)."

Holland's theory employs a typology of six personality types and six types of environment. He theorizes that by the time a person chooses a vocation he has developed some preferred ways of coping with environmental tasks. In

making a vocational choice, the person searches for those environments which are congruent with his personal orientations (Holland, 1964, p. 273).

Blau, *et al.* (1956) presented a conceptual scheme to be used in delimiting systematic research which could be the basis for a scientific theory of occupational choice. The conceptual scheme resulted from an interdisciplinary collaboration of a sociologist, psychologists, and economists. This collaboration is evident in the conceptual scheme. Within it the social structure is included as affecting occupational choice in two analytically distinct respects: (1) as the matrix of social experiences which channel the personality development of potential workers, and (2) as the conditions of occupational opportunity which limit the realization of their choices.

According to Blau, *et al.*, two crucial questions relative to occupational entry are: what developments in the lives of potential workers and in the history of the socioeconomic organization determine workers' characteristics, and what are the processes of choice and selection through which these affect occupational entry? Occupational choice is conceived as a continually modified compromise between preferences for and expectations of being able to get into various occupations. The potentiality of this conceptual scheme for research into career development of women (as well as men) is further evidenced in these statements.

> Lest the complicated and extended developmental process that culminates in occupational choice be oversimplified, it is necessary to consider it as a series of interrelated decisions rather than as a single choice. The repeated application of the suggested framework for analysis at crucial turning points in the lives of individuals makes it possible to trace this development and to show how earlier decisions, by narrowing the range of future possibilities, influence the final choice of occupation (Blau, *et al.*, 1956, p. 543).

The authors emphasized that analysis of the processes by which individuals choose one occupation in preference to others must be complemented by an analysis of the processes by which some individuals and not others are selected for a certain occupation, for only the combination makes it possible to explain why people end up in different occupations.

Present trends in the work life expectancy of women have directed greater attention during the 1960's to the speciality of the conditions which influence decisions of the majority of girls and women to seek vocational preparation, employment, departure from the labor force, and in all likelihood reentry. Theorist-researchers and practicing counselors have recognized the need for theories of career development more applicable to the life circumstances of women, although theories presented above have relevance for both men and women.

Psathas (1968) considered factors in developing a theory of occupational choice for women which probably do not operate in the same fashion for men, e.g., social mobility through marriage, and other factors receiving little emphasis in existing studies, e.g., sibling position and family social class. Describing current theoretical formulations of Ginzberg, Super, Davis and Moore, Holland, and the conceptual scheme by Blau, *et al.*, Psathas proceeded to discuss the

relevance of these factors: marriage, intention, fulfillment; family finances; social class; education and occupation of parents; values; social mobility and mate selection. The author questioned the legitimacy of the concept of choice relative to occupational roles and directed attention to explication of settings which engender predictable orientations to the occupational world. He pointed out that the variety of factors and their interrelationships are complex. He concluded that the elaboration of factors operating for women suggests that factors operative in occupational choice decisions are more subtle and dynamic than those encompassed by the "rationalistic" and "reward" frames of reference, and more inclusive than "self-concept," "need" or "etiologically" oriented approaches.

Zytowski (1969), using existing elements of career development theory formulated nine postulates as a conceptual framework. These postulates are: (1) The model life role for women is described as that of the homemaker. (2) The nature of the woman's role is not static: it will ultimately bear no distinction from that of men. (3) The life role of women is orderly and developmental, and may be divided into sequences according to the preeminent task in each. (4) Vocational and homemaker participation are largely mutually exclusive. Vocational participation constitutes departure from the homemaker role. To characterize work histories, Zytowski indicated that it is necessary to specify distinctive elements of vocational participation, i.e., age of entry; span of participation; one or few entries and departures; and the type of work, e.g., professional or skilled which he identifies as degree of participation. (5) Three aspects of vocational participation are sufficient to distinguish patterns of vocational participation: age or ages of entry; span of participation; and degree of participation. (6) The degree of vocational participation represented by a given occupation is defined as the proportion of men to the total workers employed in the performance of the job. (7) Women's vocational patterns may be distinguished in terms of three levels (mild, moderate, unusual) derived from the combinations of entry age(s), and degree of participation, forming an ordinal scale. (8) Women's preference for a pattern of vocational participation is an internal event, and is accounted for by motivational factors. (9) The pattern of vocational participation is determined jointly by preference (representing motivation) and by external, situational and environmental, and internal, such as ability, factors.

The author concluded by specifying the implications for research. Zytowski's formulation by inclusion of the last postulate, and less directly in preceding ones takes into account very generally some of the settings to which Psathas referred.

These conceptualizations have value for efforts to move toward a career development theory for women. Blau, *et al.* have provided a framework which gives due regard to opportunity factors, which in the case of women has been and in all likelihood will continue to be an important constraining factor. In addition, the emphasis on choice as compromise seems particularly relevant for women, and may well provide one explanation for the distribution of women in the current occupational structure. Further, the stress on choice as a series of interrelated decisions seems particularly valid for women, as does reassessment

of the processes at crucial turning points in workers' lives, in the case of women this might well be at reentry.

Psathas has in part filled in portions of Blau, *et al.*'s conceptual scheme as it relates to women. Zytowski's formulation has emphasized some of the more psychological factors, as would the inclusion of Super's emphasis on self-concept, Tiedeman's focus on fashioning a vocational identity, and Holland's concern with interaction between personality type and vocational environment.

In evaluating the years 1965-1968 in career development research, Holland and Whitney (1969, pp. 234-34) stated:

> Counseling psychologists have focused on adolescents; industrial psychologists have focused on selection and placement; and sociologists have focused on work groups and other group phenomena. Consequently, the links among these diverse fields--all concerned with vocational behavior--are few and weak. More long-term longitudinal studies in which concepts from many fields are integrated in single studies are perhaps the most promising possibility.

Ginzberg stated a similar position when discussing the knowledge base of career guidance.

> Guidance can no longer continue to rely on dynamic psychology, not even on psychology itself. It must develop more sophisticated understanding of the sociology of institutions and the economics of the labor market ... Guidance needs help from the more esoteric branches of psychology, such as group psychology ... new knowledge of adolescents and young adults ... (Ginzberg, 1971, pp. 327-328).

Blau, *et al.*'s conceptual framework, or some adaptation thereof might well provide a starting point for systematic longitudinal research relevant to career development for women which integrates concepts from many fields. Parnes, who collaborated with Blau in developing this conceptual scheme, appears to have moved towards its partial implementation in the longitudinal study cited earlier, *Dual Careers, Vol. 1* (Shea, 1970).

Efforts to formulate theories of career development and conceptual frameworks for research have stimulated, supported, and been modified by empirical studies.

Studies of Career vs. Noncareer Interests of Women. Lenore Harmon (1970a) studied subjects 10 to 14 years after college entrance. Respondents were dichotomized into career committed and noncommitted. Although differences between the two groups were found, none offered a basis for predicting career commitment before women began programs of higher education. In 1969, Harmon reported the results of a follow-up of 294 women entering the University of Minnesota in 1953-1955 who were located in 1966-1967. She found that while the predictive validity of the Strong Vocational Interest Blank, among respondents reporting some career commitment, compared favorably to the validity of the men's form, it was of no help in identifying which women would report career commitment. Data were obtained from 1,188 freshmen women entering the University of Wisconsin on the Life Planning Questionnaire for Women (Harmon, 1970b). Results showed that early vocational

considerations were few and general. The findings suggested that women do not make many or varied early choices and that their later choices, although more varied may be restricted to typical women's fields.

Astin (1970) explored the career development of 17,000 women from Project Talent during the five year period after high school. Educational attainment and marital-familial status best predicted whether women would choose careers in the professions or be housewives and office workers.

Wells and Wool (1966) resurveyed the women graduates of the class of 1957. Responses from 84 percent of the 5,846 contacted in 1964 indicated that almost three-fourths wanted more education or training and slightly over half were motivated by job connected reasons. Fifty-one percent were employed, most of whom had worked continuously.

Lyon (1967) obtained data from 310 members of the AAUW 25 to 45 years of age to determine what happens to career ambitions after college girls marry. She found that both part-time and full-time resumption of employment was popular and concluded that it will soon become conventional for middle-class women to return to work after 10 to 15 years of marriage.

Rossi (1965) reported some preliminary results from a study of women college graduates of the class of 1961. These results were based on 3,500 of the 8,000 responses. Of the sample, one-fifth had no career goals other than homemaking; not quite half reported long-range career goals in traditional fields in which women predominate; only seven percent were pioneers, i.e., had long-range career goals in predominantly masculine fields. Rossi reported that homemakers were women whose early lives were characterized by intense and extensive relationships with their families; who have strongly nurturant and strongly dependent tendencies.

> Pioneers, in contrast, have had looser ties with family and kin, have been oriented to the world of ideas and able to sustain less intense interpersonal relationships, have been free of the need to be dependent on others or nurturant of others ... Being less predisposed to dependence, they are prepared to establish more egalitarian relationships with men, people older than themselves, or those in a position of greater authority than their own. Since their own needs to nurture are less strong, their own personal expectations are for fewer children, with a greater willingness to sever kin ties and participate in the job world despite the responsibilities of home management and child rearing (Rossi, 1965, pp. 84-85).

Almquist and Angrist (1970) studied career salience and atypicality of occupational choice among college women. Data were obtained by questionnaire and interview throughout a four year period with 110 students. Findings showed only limited support for a deviance hypothesis, which stated that girls who choose male-dominated occupations were different from those choosing traditional feminine occupations in dating, extra-curricular activities, relationships with parents and work values. An "enrichment" hypothesis which stressed the effects of broadening and enriching experiences on career planning was well supported when data on the mother's work history, the student's own

work experience, and the influence of occupational role models were taken into account.

A study by Conaway and Niple (1966) found that mothers of career-oriented freshmen girls showed a significantly higher rate of employment than did the mothers of the noncareer group.

Gysbers and Johnston (1968) posed the question, "What demographic and attitudinal differences exist between empirically identified homemaker and career-oriented women?" These researchers used data from the Strong Vocational Interest Blank for Women completed by women at the University of Missouri between 1958 and 1964, and the results of a second administration of the SVIB-W and an occupational questionnaire from 130 women. Stable career women were reported to contrast with stable homemakers in these ways, as well as others:

1. preferred that their daughters engage in a career or a combination of career-homemaker activities,
2. saw themselves as more impatient when their personal needs conflicted with the needs of others,
3. were more skeptical concerning their religious beliefs,
4. were more interested in news magazines as opposed to women's magazines,
5. were less inclined to be content with their level of emotional adjustment,
6. were more of the opinion that they probably derived satisfaction from social interactions involving more men than women,
7. regarded personal achievement as more important than regard from others,
8. recalled doing their school work to satisfy their own internal goals.

Masih (1967) studied 68 men and 118 women college students relative to the importance to the person of his career, i.e., career saliency. The findings of this study showed that men, significantly more frequently than women, were high on career saliency. High career-salient women have high need for achievement and a very high need for endurance. They also express a strong desire for fame but are less concerned with prestige. Women of medium career saliency seem to care very little about achievement but perceive themselves as capable of enduring long periods of work. They are highly concerned with prestige but not fame. The women low in salience seemed to care very little about achievement, endurance, prestige and desire to become famous. Masih reported that high career salient women showed a career motivational pattern as high as that for men in this category; whereas low career salient women indicated a considerably greater lack of career motivation than the low saliency group of men.

Farmer and Bohn (1970) hypothesized that the level of motivational interest in women would increase if home-career conflict were reduced. They tested the hypothesis with 25 married and 25 single women who were asked to respond twice to the SVIB-W. Standard instructions were given with the first administration of the SVIB-W, and home-career conflict reducing instructions with the second administration. The results substantiated the hypothesis at the .05 level of statistical significance.

An analysis of factors associated with the participation of women doctorates in the labor force found that 91 percent of women earning doctorates in 1957 and 1958 were employed. (Astin, 1967). Of this 91 percent, 81 percent were employed full time. Astin concluded that when family responsibilities are heaviest, i.e., during the rearing of preschool children, women doctorates are not likely to participate fully in the labor force. The married woman doctorate who has demonstrated an early career commitment persists later on in a similar manner.

Wolfe (1969) obtained data on demographic variables and work values from a random sample of persons whose names appeared on mailing lists from various business organizations. She found from the responses of 1,871 women, that the work values of women can be linked to specific demographic variables. All women demonstrated a high need for work to yield the mastery-achievement and social values.

Studies of Vocational Aspirations, Choices, and Related Variables. A number of studies have examined vocational aspirations and choices as these relate to personality variables and social and demographic variables.

Kuvlesky and Lever (1967) sought to determine the occupational aspirations, expectations, and anticipatory goal deflection experienced by black girls residing in low-income rural and urban areas in Texas. From the population of 99 rural and 170 urban girls, he concluded that both groups have unrealistically high occupational aspirations. Lever and Kuvlesky (1969) obtained data from 7,775 black and white high school sophomores living in nonmetropolitan areas of five Southern states on socioeconomic status and occupational status projections. They found that the general trend of aspirations and expectation levels of upper level occupations remained for all race and sex categories at all SES levels.

Yoesting, *et al.* (1968) reported results of a follow-up study of 157 seniors graduating in 1948 from nine rural high schools in Iowa. Data were obtained by interview and questionnaire in 1948, 1956, and 1967. In 1967, of the 143 responding, 82 were women. Factors of major interest were migration, educational and occupational aspirations; career patterns, and selected social and personal characteristics. Conclusions most pertinent here were: 1) that more women than men migrated from the home communities; and 2) men had a higher degree of congruency between occupational aspirations and attainments than women.

Fortner (1970) used intelligence, Sims SCI (Occupational Rating Scale) and family wage earner's occupational level to predict the stated occupational preferences of 400 junior and senior high school girls. Occupational preferences were classified into four categories. Forty percent of the predictions were correct when only IQ was used.

Mooney (1969) used data on the Kuder General Interest Form E and occupational preferences from a sample of 1,114 10, 11, and 12th grade girls in college preparatory programs at Catholic high schools in New England. He employed discriminate functions analysis and found significantly different interest patterns in eight broad occupational preference groups. He concluded that the results strongly suggest to high school guidance counselors that

inventoried interest patterns can be used as an additional method in counseling high school girls concerning post-high school education or occupations.

Rezler (1967) investigated the characteristics of 33 high school girls expressing vocational choices in medicine, mathematics, and science (pioneers) as compared to 33 traditionals who wanted to become nurses and elementary teachers. She found that pioneers could be differentiated from traditionals on measures of interest, personality, and academic ability.

A study by Elton and Rose (1967) on the significance of personality in the vocational choice of college women found that intellectual and personality differences were related to various vocational choices. The student population for this study consisted of all female freshmen at the University of Kentucky in the fall, 1965. The investigators used the Omnibus Personality Inventory, Form C, and the ACT as a measure of scholastic aptitude. Vocational areas were categorized as social-religious-educational, administrative-political-persuasive, business-finance, scientific, medical, arts-humanities.

Faunce (1968) analyzed the personality characteristics and vocational interests of 723 gifted freshmen women who graduated and 526 who did not graduate. Using the Minnesota Multiphasic Personality Inventory and the Strong Vocational Interest Blank for Women, she concluded that nongraduates had less insight into their personality structures, greater difficulty with interpersonal relations, more problems with impulse control, and greater inner tensions than did graduates. SVIB scores of graduates were higher on the Author, Librarian, English Teacher, Social Science Teacher, Psychologist and Lawyer scales. Nongraduates had higher scores on the Buyer, Stenographer-Secretary, Office worker, Business Education Teacher and Dietician scales.

Edwards (1969) asked 322 student nurses and 250 student teachers to indicate their career-marriage values and the values of eight significant others on a 9-point scale ranging from high value on education and a career to high value on marriage and a family. Each respondent also indicated her preference for one of three life plan roles: marriage-oriented, career-oriented, and compromise. For both groups, the perceived values of significant others were found to show no significant differences across the three life plans. He concluded that value structures and the decisions they influence are not a direct function of the values held by significant others. Although these values are "relevant their importance is subtle, complex, and tempered by the individual's own mediating capabilities (Edwards, 1969, p. 40)."

Schwartz (1969a) reported from a survey of students that although responses varied, girls whose initial preference was medicine cited role stereotypes as most often responsible for altered decisions.

Some other studies have focused on women workers in specific occupational statuses. The Business and Professional Women's Foundation (1970) has published an annotated bibliography on women executives, which includes research reports among other types of publications. Simpson and Simpson (1969) have analyzed and described women and bureaucracy in the semi-professions of nursing, teaching, social work, library science. This analysis lends itself to the conceptual framework presented earlier by Blau, *et al.* (1956) and considered entry into these occupations; family, work, and discontinuity of

careers; factors offsetting low career commitment, discrimination against women; values, goals, and compliance; and effects on the organization.

Martin and Saunders (1970) analyzed personality patterns of women in selected professions. The Wechsler Adult Intelligence Test Scale was administered to 221 professional women attorneys, physicians, pharmacists, mathematicians, physicists, programmers, realtors, social workers, and high school science teachers. Scale results were analyzed in terms of Gittinger Personality Assessment System and reference groups were established. The first three reference groups comprised almost all individuals in those professions which require the most extended and complex academic training. The largest and most stable was labeled the Professional Generalist. This group included the mathematician-physicist-programmer group, science teachers, pharmacists, most of the attorneys and about half of the physicians. The group is characterized by nonimitative behavior, and members have self-generated and self-inspired interests, mental discipline, are evaluative and probing though rarely imaginative.

A second reference group established was composed of attorneys and physicians and was called Procedural Specialists. This group is characterized as highly intellectualized and having mastery of complex procedures.

A third reference group was called Intuitive Specialists and is characterized by the ability to make educated intuitive inferences.

The realtors and social workers in the sample provided the basis for establishing three reference groups for realtors and two for social workers. The Realtor A reference group is composed of saleswomen, successful primarily because of their personal acceptability. Realtor B is a group of primarily saleswomen who may achieve success because of conscious application to the job. Realtor C is essentially a group of practicing brokers who are characterized by aggressive and competitive qualities.

Distinctions between reference groups A and B for Social Workers was reported to be more a function of different motivational patterns than any difference in the way persons were expected to function as social workers. They concluded that for a university woman whose WAIS/PAS pattern fits one of the reference groups established, counselors could suggest she consider preparing for a career in the profession.

Campbell and Harmon (1968) studied the vocational interests of nonprofessional women. Selecting samples of women working in 17 occupations, survey instruments were used to identify respondents who had worked in the occupation for not less than three years, were currently employed, and who reported liking the work. Using the Strong Vocational Interest Blank and SVIB Occupational Scales, profiles were developed for the following: beauticians, dental assistants, entertainers, executive housekeepers, instrument assemblers, interior decorators, licensed practical nurses, life underwriters, radiological technologists, saleswomen, secretaries, sewing machine operators, army enlisted personnel, and navy enlisted personnel. This study provided the only major source of information on women workers in these occupations and about the occupations. The results of this endeavor should be particularly valuable for vocational counselors in assisting girls and women to select vocational training programs.

One other study of nonprofessional women, which came to the fore was done by Noble (1967) and explored the domestic's view of her working world. The purpose was to explore methods for identifying domestics, establish methods of obtaining employer-employee cooperation, pretest three instruments and determine appropriate techniques for a larger study. The study was implemented with a random sample of 50 black domestics who lived in Harlem and worked in New York City and Long Island. The recommendations included replication of the study with a sample of 500 using the employee and employer interview guides.

Attitudinal Studies. Attitudes relative to the vocational behavior of women have been the subject of inquiry of a number of studies, sometimes as an integral aspect of complex variables, such as in studies reviewed above, and at other times as central variables. The attitudes of youth have been studied as providing some indication of the future.

Reporting results of a study of girls, eight and 11 years of age, Hartley (1962) indicated that girls perceived adult women as disliking scrubbing, tidying, washing dishes and clothes, vacuuming and ironing. In addition girls projected that when they grew up they would feel the same way. Child care, cooking, shopping, and sewing evoked positive responses.

Upper middle class girls differed from lower middle class girls in being especially apt to dislike the domestic activities cited above. The homemaker image which includes a fairly large managerial role was more acceptable to girls from upper middle class homes, whereas lower middle class girls were more accepting of the service component. Hartley continued to report that upper middle class girls were also far less interested in vocational activities than were lower middle class girls. On the basis of these findings, she projected the problems of adjustment upper middle class girls are very likely to encounter as adults in a society in which increasing numbers of women work and suggested implications for counseling.

Entwisle and Greenberger (1970) obtained data from a sample of ninth grade boys and girls, selected to typify segments of the U.S. population. The focus of inquiry pertained to attitudes about whether women should work, the kinds of jobs women should hold, and whether women should be intellectually curious. Boys were found to be consistently more conservative than girls. Black children were less opposed than white to having women working outside the home.

Matthews and Tiedeman (1964) studied 1,237 girls and young women who were selected to provide cross-sectional representation of the developmental stages of early adolescence, adolescence and young adulthood. The purpose of the study was to explore the effect of attitude toward career and marriage upon the developing life styles. Data obtained on a career history sheet and a set of attitude scales showed that:

> The effect of attitude towards career and marriage differs in the three developmental stages. A pseudo-career drive seems to appear in some women during early adolescence. Major attitudinal themes affecting life style during early maturation are (in order of importance): (1) woman's impression of the male's reaction to the use of her intelligence; (2) struggle

over the possible position of dominance of men at work and the "place" of women at home; (3) conflict between family and work demands upon the time of a wife and mother; (4) dilemmas of timing in dating and marriage; and (5) issues in acceptance of the general outline of the feminine role (Matthews and Tiedeman, 1964, p. 375).

The self-concept of college women compared with their concept of ideal women and men's ideal women was studied by Steinmann, Levi, and Fox (1964). Three forms of the Inventory of Feminine Values was administered to 75 women attending a metropolitan college. The results were that women perceive themselves and their ideal woman as essentially alike with equal components of passive and active orientations, but they perceive men's ideal woman as significantly more passive and in a subordinate role in both personal development and familial roles. The authors noted that the findings suggest intra-psychic conflict and they suggested implications for counselors.

Hewer and Neubeck (1964) surveyed 4,283 freshmen college students, 2,729 of whom were men and 1,554 women, relative to reasons students accept for married women working, those reasons they believe others accept and those they believe they should accept. According to the authors, the results indicated that freshmen entering a large midwestern university in 1959 most frequently accepted the traditional and nurturant role for women. They also believed that the husband was responsible for the financial support of the family although women were less accepting of this belief than men. In most cases, there was a strong relationship between the reasons the students accept and what they think they should accept. Women believed more frequently than the men that it is acceptable for women to work in order to try out their training and work with others who have similar interests. However, they concluded, there is little evidence of a cultural change with the majority of these women believing their place is in the home. They seem to want it that way and agree to venture out only when they can earn money to increase the comfort and well-being of their families.

Counseling. One purpose of many of the studies reported under career development was to provide information to assist counselors working with young girls and women. Conferences have been held for counselors to apprise them of patterns of employment of women, the problems encountered and the implications for counseling. In addition, articles in professional journals have presented information relative to the same objective.

Phillips, *et al.* (1964) reported on a conference held at Tuskegee Institute to inform high school counselors about assisting youth to enter government and industry. A representative of the Women's Bureau spoke on the opportunities for women in the sixties and seventies.

In 1965, Mattfeld and Van Aken edited a volume of papers presented at a symposium on American women in science and engineering held at Massachusetts Institute of Technology. Among those presenting papers were Jessie Bernard, Bruno Betteheim, James Killian, Alice Rossi, Lillian Gilbreth and Erik Erikson. The topics considered were the commitment required of a woman entering a scientific profession; barriers to the career choice of engineering, medicine or science among American women; enhancing the role of women in

science, engineering and, the social sciences; the present situation of women scientists and engineers in industry and government; the present situation in the academic world of women trained in engineering, and the case for and against employment of women.

Murphy (1966) reported on the Midwest Regional Pilot Conference on new approaches to counseling girls in the 1960's. Topics were fairly typical, including the counselor's effect on career choice. *Counseling Girls Towards New Perspectives* (U.S. Department of Labor, 1966) reported activities of the Middle Atlantic Regional Pilot Conference and included the content of presentations. Speakers directed attention to the changing realities in women's lives, the male-order female and the conditions which limit the development of human potential. Representatives of each Middle Atlantic state reported on the contribution of State Commissions on the status of women to the guidance and counseling profession. The Conference concluded with reports from workshop sessions which had considered specific questions on the effect of parental influence, the curriculum, teachers' attitudes, feminine role, integration of responsibilities, problem of economic need, restrictions on career choices and counselor's effect on career choices of girls.

Dolan, *et al.* (1966) reported on a project to determine successful counseling techniques and the length of time necessary to prepare employment counselors to work with women 35 to 54 years of age. A guide was included to help others interested in such programs.

Berry (1966) specified the diversity of activities within women's life span which counseling women and girls should encompass. Berry, *et al.* (1966) prepared a booklet on counseling girls and women. Focusing on awareness, analysis, and action, topics included total life planning, patterns of employment, changing attitudes towards women's roles, women's place in education and training, and future oriented possibilities.

Concerned with helping the creatively gifted girl achieve her potentiality, Torrance (1965) described six special roles counselors can play. Counselors can provide a refuge to the creative child often estranged from her teachers and peers. They can serve as a sponsor or patron. The essentials of the creative personality frequently puzzle the creative student herself. The counselor can help her to understand her divergent thinking. The need to communicate ideas is strong and the counselor can let her communicate these ideas. Counselors can see that creative talent is recognized and help teachers and parents understand the creative girl.

Rezler (1967) emphasized that girls choosing a pioneer vocation need the counselor's help to integrate their self-concepts with reality factors. The counselor's role is more limited, in her view, with those choosing traditional occupations since these girls are social and status-oriented in a feminine way.

The psychological characteristics of women are urgently needed in the work of our society, according to Westervelt (1966). She suggested that counselors should be more energetic than they are in aiding and encouraging girls and women to enter such professions as law, city management, business administration, hospital administration and architecture. Help should be given to women to acquire more persistent commitment to politics and civic planning,

training in new technologies, and for subprofessional positions. She emphasized that women should be encouraged to enter diverse pursuits *because* they are women and in turn, counselors should convince educators, employers, and the general public of the need of women's contributions.

Conaway and Niple (1966) had freshmen women complete a questionnaire dealing with the work patterns of their mothers and grandmothers and their own future goals. The intent was to make national statistics on women workers more personal and meaningful, and to cause students to consider more possibilities for their own future.

Some national resources for women's continuing education were specified by Dolan (1965). She reported the efforts of a number of national organizations including the AAUW, National Council on Family Relations, American Home Economics Assoication, Adult Education Association, American Guidance and Personnel Association, Business and Professional Women's Clubs, American Nursing Association, and the American Academy of Arts and Science among others.

Bruemmer (1969) reviewed the condition of women in society today and emphasized their need for more realistic information on available options. An annotated bibliography on this topic was published in a subsequent issue of the same journal (Bruemmer, 1970).

Matthews (1969) discussed the eight phases of vocational counseling for adult women as including inner preparation, intensive family involvement, vocational experimentation, vocational planning, vocational implementation, vocational analysis, vocational resynthesis, vocational development resource.

Eyde (1970) emphasized that vocational counselors of women need to consider key questions relative to barriers to career development of women, such as the number of children women would like to have, in assisting them to plan careers. She indicated that counselors need to be aware of subtle changes occurring in occupations so as to be preparing women for the future instead of the past.

Acknowledging the central role of counseling, Koontz (1970b) directed attention to the prejudice existing regarding occupations suitable for women and proposed multipurpose counseling centers be established.

In summary, efforts are being made to formulate a theory of career development applicable to women in that different contingencies affecting their labor force participation are included. Research reflects concern with processes of developing vocational awareness and factors which facilitate, limit, and impede vocational decision-making. Other efforts have provided greater understanding of the interrelationships between socially defined sex roles and employment in specific occupations. Characteristics of some nonprofessional occupations have been described in terms of women who express satisfaction with employment in these areas.

It is quite evident that college students, college graduates, and women in professions have been the subject of a major amount of research effort. This may be explained by the concern with: the social and economic investment in education and accounting for its return; manpower needs for educated and

skilled workers and the loss of women from this resource; and equal opportunities for women to be involved in responsible decision-making positions in society. Some other factors may well include the ready availability of college students for research, the greater ease of obtaining local support to study graduates, and the fact that most researchers are affiliated with universities and the professions.

Although a number of reasons can be summoned to account for the focus on the college educated woman worker, it does not eliminate the very limited information available, at least as was evident in this endeavor, on work histories and career patterns of women in the skilled, semiskilled and service occupations, which in fact involve the majority of women workers.

Information about jobs and occupations in which women are employed but in variable proportions is frequently reported in general terms of employees, thus obscuring whether relationships vary for employees on the basis of sex. It is likely that such studies have in fact employed sex as one of several independent demographic variables, and thus information may exist which would need to be ferreted out from the more general context, e.g., White's (1948) study of the restaurant industry. Such effort might prove rewarding in terms of increasing our insight and understanding of women as workers. The time constraints on this review precluded such efforts.

Campbell and Harmon's (1968) study of vocational interests of nonprofessional women provided the most extensive information available on job descriptions, demographic characteristics, and job satisfaction by occupation. Their results were provocative for subsequent studies of these occupational groups which might be designed to provide valuable information for curricula development, updating for reentry, and clustering of occupations within which lateral as well as vertical moves through the course of a woman's working life might be more advantageous for economic returns and personal satisfaction.

If indeed the concern with women workers is based on the valuing of work as a source of life satisfaction for all citizens, as well as manpower resources to meet requirements of a changing technology and economy, surely more intensive study of clerical, skilled, semiskilled, and less prestigious service occupations is needed.

CURRENT TRENDS AND ISSUES

Labor Force Participation

Lecht (1969) and The Women's Bureau (U.S. Department of Labor, 1969a) emphasized the relationship between national priorities and manpower needs in this decade. The Women's Bureau (1969a) reported the projection that the number of women workers is expected to increase faster than that of men workers in the years ahead, as it has over the past several decades. Conservative estimates are that 41.9 percent of all women 16 years of age and over will be in the labor force in 1980, as compared to 41.6 percent in 1968. For women 18 to 64 years of age the rate is expected to be 49 percent in 1980, as compared to 48.2 percent in 1968. Projections indicate that larger proportions of mature women will be working in 1975 and 1980 than in 1968.

Drucker (1971) and The Women's Bureau (1970b) reported the probable influence of the drop in birth rates, which began in 1960 and shows no signs of increasing, on the labor force participation of younger women and the earlier return to the labor force of women 30 to 40 years of age. Further, the educational attainment of women has been increasing. The Women's Bureau (1970a) reported that each year in the sixties, there were increasingly higher proportions of women who completed high school, who went on to college and who earned a degree. Thus, a number of interrelated conditions related to higher labor force participation exist.

Concurrently, manpower shortages will exist (Lecht, 1969) if, as a nation, efforts are made to progress in achieving a number of the goals currently discussed, such as cleaning up the environment, extending health services, and rebuilding cities. Myrdal and Klein (1968) have noted that manpower shortages have been fairly persistent in industrialized countries. The nature of manpower requirements will, however, be determined by the national priorities, and will in turn be reflected in the changing occupational composition of employment, and the prospects for bottlenecks and surpluses in specific occupational fields (Lecht, 1969).

There is consensus that the trend is for a decrease in the demand for unskilled and semiskilled workers, and an increase in demand for the skilled, crafts and particularly technical areas. The importance of vocational and technical training and education cannot be overemphasized and takes on even greater import for women, in view of the narrow range of occupations for which women have prepared.

Automation, Unemployment, Leisure

Automation and its subsequent impact has been a focus for concern, deliberation, and projections of a utopia of leisure for all, and a disaster of rising unemployment. Analysis of existing evidence relative to the effect of automation on the employment of women, not surprisingly, points to mixed outcomes.

G. Smith (1964) in studying a local job market for women, included questions to ascertain the impact of automation within the firms surveyed. On the basis of these data, she speculated that the effects of technology are cyclical, in that forcing change, it may play wage differentials against institutional influences to swing the main weight of employment demand alternately toward men and then toward women in successive, recurrent stages (p. 34). The Women's Bureau (1970a) in disucssing automation in relation to the clerical field described a pattern similar to that speculated by Smith. The publication reported that the new, relatively higher skilled positions were usually filled more by men than women. It was noted however that computer installations often necessitate larger office staffs. Since computers are installed mainly in expanding companies, they are able to afford these larger staffs.

The report continued that some white-collar jobs are disappearing, e.g., bookkeeping, payroll, sales, invoicing, and inventory work, especially in some industries. In some factories, mechanization has caused virtual elimination of the unskilled manual jobs performed by women. However, expanding demands in other industries have outweighed the overall influence of laborsaving machinery. Laborsaving equipment has in some industries removed obstacles to women's employment in jobs previously considered too difficult or too dangerous. Management and labor unions have sought to minimize negative effects of automation through severance pay, transfers, and retraining programs for reassignment within the firm.

Guilbert (1970) studying the effects of automation on working conditions of women in France emphasized that the area had not been sufficiently investigated. On the basis of observations in one industry, the metalworking industry, she described two distinct types of cases, the one, where automation did not really change the work except to emphasize its piecemeal, repetitive nature; and a second where the number of women employed was reduced, when the men were employed to operate newly installed machines. The impact on employment of women was reduced through transfers to nonautomated departments. She concluded that one cannot be categorical about the possible effects of technological change, nor can one overemphasize the importance of providing vocational training for women at a high standard and in a wide range of subjects so that they can obtain the new jobs that presently are too often closed to them.

Takahashi (1968) reported on the redistribution of women's employment in Japan between 1955-65, a period of rapid technological change. From a national survey of 4,000 establishments, it was found that in the majority the number of women workers increased; in 20 percent of the sample women had been placed in jobs that either had not previously existed or had been occupied

solely by men up to that time. She attributed the smooth redistribution of women's employment to these factors: growth in the national economy; action of management and labor organizations to avoid dismissals; and natural wastage through departure of women from the work force to fulfill family obligations; and a wage system which is based on seniority rather than job classification, thus facilitating intrafirm transfers.

Lecht (1969, p. 126) pointed out that the task of making greater progress in realizing national goals as these are currently defined,

> makes it less than probable that the vision of the future anticipated by those observers who have been impressed with the role of automation in reducing opportunities for employment will represent an accurate portrayal of our society in the 1970's. This representation of the future, with its forecast of a growing tendency toward long-term mass unemployment, overlooks the consequences of a more ambitious pursuit of national goals for the employment of blue collar and white collar workers in the next decade.

Henle (1966), Kreps (1968), and Burck (1970) present some thought-provoking information for those who foresee a future of decreasing work and increasing leisure. Henle reported that studies suggest that long work hour schedules were increasing for much of the labor force and presented data for various classes of workers and industries. He noted that

> the facts regarding the prevalence of long working hours raises questions about the long-standing belief that Americans are showing increasing preference for leisure instead of income. Many workers, for reasons either of choice, habit, or necessity, seem to regard leisure as second to income (p. 725).

Kreps (1968) in a study of some Western European countries compared patterns of lifetime allocations of work and leisure. She reported patterns which included longer blocks of time for vacations within a longer work life. Kreps' report underscores the realization emerging for many that a balance of work and leisure contributes to a satisfying life rather than an overabundance of either.

Burck (1970) supported the position that there will be "less leisure than you think" on the basis of the low productivity of the service sector of the economy, which is expanding rapidly; and the fact that many services rely on live performance and personal contact between buyer and seller, thus minimizing the extent to which laborsaving capital equipment can be substituted for labor. Burck projected that by 1990, services may well account for more than 70 percent of all jobs.

In sum, automation will have an impact on the type of work women do and their distribution throughout the occupational structure; it is very unlikely that it will result in a leisure society. A number of indications, evident from earlier inclusions in this report, point to a greater sharing between men and women of whatever increments in leisure do occur.

Changing Manpower Requirements

A changing technology as well as present and emerging national priorities influence the occupational competencies required of workers. If the economic

rights of women are to be secured through time, women workers will have to be responsive to changing manpower needs, by acquiring the competencies for which there is a market. For this to be accomplished, programs must be open to all irrespective of sex, and social attitudes must encourage and support vocational choices based on aptitudes, interest, and talent.

There is evidence of some movement in this direction when, according to Hedges (1970), during fiscal year 1968, the number of women enrolled in selected curricula in all trade and industrial programs in public vocational and technical schools, in the nation, were: air conditioning, 37; aircraft maintenance, 539; appliance repair, 171; auto mechanics, 906; automotive specialization, 142; business machine maintenance, 22; industrial electrician, 158; instruments maintenance and repair, 103; and radio-television repairman, 977. These are groups of students which merit particularly careful follow-up to ascertain employment patterns and job satisfaction among other variables.

In addition to moving outside the narrow range of vocations commonly chosen by women, there must be more concerted efforts for training for initial entry or retraining of reentry into the labor force after a period of absence for childbearing. Such efforts are essential if women are to make optimal contributions throughout the longest period of their work lives. The fact that retraining of men must become a more common practice in a changing economy may expedite the allocation of financial and educational resources necessary for such programs.

Inequities which are said to result from discontinuity in labor force participation may be somewhat minimized also by current trends. Ginzberg (1968a) and Drucker (1969) have noted the need for men to return to school to refurbish their knowledge to broaden their careers, or to prepare for radical shifts in careers. Drucker discussed work and workers in the knowledge society, and stated that the full import of the greatly lengthened working life span has not been taken into account. Early retirement may be a solution for the manual worker, he acceded, but the knowledge worker, he believes, cannot easily retire without rapid disintegraiton. In Drucker's terms (1969, p. 292):

> We must make it possible for the middle-aged knowledge worker to start a second knowledge career ... The accomplished knowledge journeyman, at forty-five or fifty, is in his physical and mental prime. If he is tired and bored, it is because he has reached the limit of contribution and growth in his first career–and he knows it. He is likely to deteriorate rapidly if left doing what no longer truly challenges him.

Lecht (1969, p. 111) described the work histories of men who were not college graduates:

> Beginning with the first position held for at least six months, the typical member of the labor force without a college education, to cite a current estimate, holds twelve different jobs in a forty-six-year working life. Only one man in five in this group can anticipate remaining in the same major occupational category for his entire life. Except for those in the skilled craft, service, and white collar occupations, most workers in the non-college group do not have careers. They usually hold a series of jobs,

which are likely to be unrelated or only loosely related to each other. The education and training that is significant for these people would stress increasing the options available to individuals in a changing society, rather than training them for a first or second job.

Unfortunately, there is a dearth of information about work histories of women who are not college graduates. But one can speculate that the differences from those described for men by Lecht would be only a matter of degree. The need for retraining is essential for women and is becoming increasingly so for men.

Commitment to Full Employment, Equal Opportunity to Employment and Equal Pay

The federal government is committed to a policy of full employment and the economic growth which it requires. With the legislative acts and executive orders designated above, women have been included as having the right to employment. A question to be partially answered in the coming decades is the strength of the commitment to the employment of women, with equal opportunity and equal pay. As long as there exists a strong demand for labor, social forces will be more supportive of enforcement of these laws and the commitment which they reflect.

If, however, dislocations in the economy and shifts in national priorities lead to increased rates of unemployment, this commitment will be tested and the response illuminating. Under such conditions, will the view of women as secondary earners persist and result in preference being given to male applicants over equally qualified women; or lead to terminating the employment of women prior to terminating the employment of men? If changes in alimony and child support laws occur, with financial obligations shared by both spouses, the economic obligations of women should strengthen enforcement of their right to equal opportunity to meet those obligations through employment. Families with two incomes should be better able to sustain themselves in spite of short or long-term disruptions of employment for whatever reason. In addition to these economic bases for perserverance to maintain the economic rights of women in periods of stress, evidence attests to the intrinsic value of work for women as well as men. Contributions through work provide a source of validation of personal worth for many and as such give meaning to life.

The present and future impact of the various organizations of women which make up the Women's Liberation Movement is difficult to assess. Pressing for full economic rights for women has been a major thrust of the National Organization for Women (NOW). The Bill of Rights, adopted in Washington, D.C., in 1967 at NOW's first national conference, included:

I Equal Rights Constitutional Amendment
II Enforce Law Banning Sex Discrimination in Employment
III Maternity Leave Rights in Employment and in Social Security Benefits
IV Tax Deduction for Home and Child Care Expenses for Working Parents
V Child Day Care Centers
VI Equal and Unsegregated Education

VII Equal Job Training Opportunities and Allowances for Women in Poverty
VIII The Right of Women to Control Their Reproductive Lives (R. Morgan, 1970, p. 512).

As reported earlier, action to enforce legislation has increased. "Complaints against sex discrimination received by the Equal Employment Opportunities Commission increased in 1970, 'mostly as a result of women's liberation' (*Washington Post*, July 21, 1970)." (Bernard, 1971, p. 215.)

A publication, *The Women's Rights Law Reporter* has been initiated in July 1971 to keep women's groups and women lawyers informed of cases initiated and subsequent court decisions.

The growth of the women's movement has increased from a few groups in major cities to a movement of an estimated 100,000 women in over 400 cities (Bernard, 1971, p. 217). Most support the efforts to secure economic rights and are also directing their efforts to modifying the *status quo* in the direction of equality between the sexes in sharing domestic and child-rearing responsibilities, and to developing more supportive social arrangements. If equality is achieved in this area, women would be greatly aided in exercising their economic rights.

CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

Vocational education has a central part to play in contributing to the preparation of women for emerging occupations, and occupations primarily labeled as masculine as well as in those more commonly deemed appropriate for women. Ely, *et al.* (1970), Koontz (1970a), Lee, *et al.* (1967b), and E. Simpson (1970) have specified some of the implications of work patterns of women for specific areas within vocational education and for the field generally.

Recommendations for action, in general, include increasing opportunities for developing vocational awareness in relation to aptitudes, abilities, and interests; more effective counseling for career choice which goes beyond the "feminine occupations;" recruitment of girls into programs preparing for employment in a wider range of occupations and career ladders; direct attention to preparation for the dual role of homemaker and employee; and various research and action efforts to modify attitudes of students, teachers, parents, and employers which place artificial restrictions on occupations of women.

Three major endeavors in vocational education which have particular import for women, in my opinion, include the emphasis on developing vocational awareness, job analysis as a basis for curriculum development and selection of students; and instruction in job clusters.

Vocational Awareness Programs Devoid of Sex-Typing

In the long term, programs to help youth become better informed about vocations available can do much to free girls and boys to choose vocations on the basis of aptitudes and interests, if the subtle and blatant sex labeling of occupations is systematically eliminated. If sex labeling is not eliminated, programs will only perpetuate and reinforce existing restrictions.

In addition to integrating awareness of vocations in various subjects throughout grades K through 12, some experimentation might well be in order to develop a core subject for all students, which would focus on a large number of occupations from unskilled to professional, through a variety of industries and service organizations.

A second equally important focus would be the aptitudes, interests and abilities linked with different occupations, the training required, the remuneration, and advancement possibilities. Students would be assisted in self-analysis of abilities, interests, and talents.

A third major thrust might be the combining of work and leisure through various life stages, emphasizing job changes, and possible major career changes in relation to family life. Such a focus could be labeled "Family Life Styles: Work

and After Hours." It would include family deliberations on employment of husband and wife in relation to number and ages of children, economic, social, and personal values. Portions of the content of a curriculum such as that developed by Dalrymple, Lowe, and Nelson might well be adapted for use with a group of boys and girls. Experimentation should include the scheduling and sequencing of material in terms of grade levels and so on. Such an approach has exciting possibilities for expanding the horizons of all students towards not only an understanding of occupations in relation to themselves and personal and family life stages, but also the complex and interdependent economic order of this society. Such a program is being attempted in the "Comprehensive Career Education Model" project underway at The Center for Vocational and Technical Education.

Job Analysis: Basis for Selecting and Recruiting

Job analysis should result in the identification of the essential cognitive, affective, and psychomotor skills necessary for doing a job or a cluster of jobs. Students should be recruited who have the prerequisite abilities to acquire the competencies needed. Although some jobs may require sex-linked attributes, e.g., physical strength, this should be relatively infrequent, and only in such cases should sex become a basis for screening.

Job Clusters and Career Ladders

Instruction in a cluster of jobs would provide flexibility of employment for all students, and have particular benefits for girls and women in lower paying jobs. Instruction should include information about existing career ladders, and efforts should be directed to developing more of these in various vocational areas. Within such an instructional context, girls and women could begin to see their lives as having varying ratios of gainful to useful employment and to plan their vocational preparation accordingly. A girl having acquired entry level competencies, reinforced and extended through employment, might plan for added vocational training necessary for the next step on the career ladder during her period of withdrawal from the labor force to rear children.

Vocational Education For Mature Women

An area much in need of research and development is vocational preparation for the mature woman seeking to enter or reenter the labor force. Federal programs described previously provide opportunities for women with special problems. Vocational opportunities for the working-class woman or the middle-class woman are less available. Kreps (1971) has noted that with the exception of the guidance offered through the continuing education programs that have appeared during the past two decades, women have had to return to the labor market with little assistance from the educational world. Research designed to provide information on vocational educational needs and interests would be a point of departure. Follow-up studies of graduates of vocational high school programs after a 10 year period, would reach many women at a time when they might well be directing thoughts to returning to work, if in fact they were not currently employed.

Data elicited could include need for refresher courses prior to reentry, as well as interest in changing vocational areas and acquiring new vocational skills. Funding programs called for by such research might pose a problem. However, alternative means of funding should be considered such as programs offered through an adult evening school with a fee to defray costs; educational loans from local banks to be repaid after taking employment.

Mature women may prove to be particularly receptive to vocational training in the skilled trades and other areas outside those commonly entered by women. Some experimentation with developing courses in these areas and recruiting and placing mature women in these jobs merits attention. It has been suggested that young girls make vocational choices at about the same time they are establishing their sexual identity. Choosing a "masculine" occupation tends to mitigate against this developmental task of firmly establishing one's identity as a girl. Mature women, often mothers, would in all likelihood not have such conflicts, and aptitudes, interests and economic incentives would have greater significance for them.

Women as Vocational Educators

A final area to be noted is with reference to women as professionals among the ranks of professional vocational educators. Vocational areas tend to coincide with sex labeled occupational categories such as home economics, business and office occupations, health occupations, and so on. Therefore, it is likely that the sex distribution among teacher educators tends to reflect the sex distribution of the students within the area. However within the research available one does not find specific data on number of teacher-educators in, for example, distributive education, or business and office education, who are women. If vocational education is to be effective in providing educational opportunities for women across the total spectrum of occupations for which they have aptitude, ability, and interest, ultimately, women should be represented in all areas and at all levels in vocational education.

In conclusion, vocational educators have a vital role to play in the full realization of economic rights for women. This includes:

1. developing vocational awareness programs devoid of sex-typing of occupations;
2. the objective and consistent use of job analysis as a basis for curriculum development and selecting and recruiting students;
3. strengthening instruction within job clusters and including women in most if not all vocational-technical areas;
4. developing career ladders;
5. researching and developing sound vocational education for mature women;
6. recruiting women to become vocational educators in more vocational areas and at all levels.

The full realization of economic rights for women increases the possibilities for personal self-fullment for over half the total population, for strengthening the economic base of many families, and for more effective utilization of the human resources in this society.

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